

Chapman, David.txt

0001

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
OF THE STATE OF OKLAHOMA and )  
OKLAHOMA SECRETARY OF THE )  
ENVIRONMENT C. MILES TOLBERT, )  
in his capacity as the )  
TRUSTEE FOR NATURAL RESOURCES )  
FOR THE STATE OF OKLAHOMA, )

Plaintiff,

vs.

TYSON FOODS, INC., et al,

Defendants.

4: 05-CV-00329-TCK-SAJ

THE VIDEOTAPED DEPOSITION OF  
DAVID CHAPMAN, produced as a witness on behalf of  
the Defendants in the above styled and numbered  
cause, taken on the 6th day of April, 2009, in the  
City of Tulsa, County of Tulsa, State of Oklahoma,  
before me, Lisa A. Steinmeyer, a Certified Shorthand  
Reporter, duly certified under and by virtue of the  
laws of the State of Oklahoma.

0002

A P P E A R A N C E S

FOR THE PLAINTIFFS:

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-and-  
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FOR CARGILL:

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FOR SIMMONS FOODS:

Ms. Vicki Bronson (Via  
phone)  
Mr. John Elrod  
Attorneys at Law  
211 East Dickson Street  
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FOR PETERSON FARMS:

Mr. Philip Hixon  
Attorney at Law

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18 Chapman, David.txt  
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19  
20 FOR GEORGE'S: Mr. James Graves  
Attorney at Law  
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22  
23 ALSO PRESENT: Mr. William Desvouses  
24  
25

0003

# I N D E X

W I T N E S S	P A G E
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0004

1 (Whereupon, the deposition began at  
2 8:35 a.m.)  
3 VIDEOGRAPHER: We are now on the Record for  
4 the deposition of David Chapman. Today is April  
5 6th, 2009. The time is 8:35 a.m. Counsel, please 08:35AM  
6 identify yourselves for the Record?  
7 MR. DEIHL: I'm Colin Deihl representing  
8 Cargill.  
9 MR. HIXON: Philip Hixon representing  
10 Peterson Farms: 08:36AM  
11 MS. XIDIS: Claire Xidis for the State of  
12 Oklahoma.  
13 MS. MOLL: Ingrid Moll for the State of  
14 Oklahoma.  
15 VIDEOGRAPHER: And on the phone, please? 08:36AM  
16 MS. BRONSON: Vicki Bronson for Simmons  
17 Foods.  
18 VIDEOGRAPHER: Thank you. You may swear in  
19 the witness.  
20 DAVID CHAPMAN  
21 having first been duly sworn to testify the truth,  
Page 2

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22 the whole truth and nothing but the truth, testified  
23 as follows:

## DIRECT EXAMINATION

24  
25 BY MR. DEIHL: 08: 36AM

0005

1 Q Mr. Chapman, please state your full name for  
2 the Record.

3 A David John Chapman.

4 Q You've been deposed before; correct?

5 A Yes. 08: 36AM

6 Q How many times approximately?

7 A Two, I believe.

8 Q What is your home address?

9 A 4195 17th Street, Boulder, Colorado 80304.

10 Q And what's your work address? 08: 36AM

11 A 1881 9th Street, Suite 201, Boulder, Colorado  
12 80302.

13 Q What is your date of birth?

14 A May 31st, 1960.

15 Q You understand that you are under oath here  
16 today? 08: 37AM

17 A Yes.

18 Q And you understand that I'm going to be asking  
19 you a series of questions, and the court reporter is  
20 going to take down these questions and your answers  
21 to those questions; correct? 08: 37AM

22 A Yes.

23 Q And you understand that the deposition is  
24 being videotaped?

25 A Yes. 08: 37AM

0006

1 Q If at any time you don't understand one of my  
2 questions or you need a break, would you let me know  
3 that?

4 A Yes.

5 Q And I'd only ask that you not ask for a break  
6 between the time that a question is pending and the  
7 time you give your answer; is that fair? 08: 37AM

8 A Sure.

9 Q You have an MS in natural resource economics;  
10 correct? 08: 37AM

11 A Yes.

12 Q You do not have a PhD; correct?

13 A No. I never completed my PhD work.

14 Q Okay. What is the hourly rate that you're  
15 billing out at on this file? 08: 37AM

16 A The rate at which my firm charges?

17 Q Yes.

18 A I think it's \$218 for myself.

19 Q And approximately how many hours have you  
20 personally spent on this matter? 08: 38AM

21 A I would have to look at the records. I can't  
22 tell you exactly how many hours I've spent on this  
23 matter right now.

24 Q When did you first -- when were you personally  
25 first retained in connection with this matter? 08: 38AM

0007

1 A Can you be more specific about what you mean  
2 by this matter?

3 Q Anything relating to Tenkiller Lake or the  
4 Illinois River in Oklahoma.

5 A I don't know specifically when I personally  
6 was retained. Again, my firm has been retained. As 08: 38AM

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7 a member of the firm, I've been working on the  
8 project. I personally have not been retained.  
9 Q Okay. When was your firm first retained?  
10 A I think it was sometime in 2005 but I'm not 08: 38AM  
11 sure exactly when.  
12 Q And when did you first begin working on the  
13 matter?  
14 A In 2006.  
15 Q So you didn't work on the matter prior to 08: 39AM  
16 2006?  
17 A I'd have to look at the records specifically  
18 around when exactly it happened, but I know for sure  
19 in 2006.  
20 Q What was the first project you personally were 08: 39AM  
21 asked to do in connection with the matter?  
22 A From what I can remember right now, the first  
23 project was to think about potential approaches to  
24 estimating natural resource damages for the  
25 Tenkiller Lake/Illinois River area. 08: 39AM  
0008  
1 Q And who asked you to think about potential  
2 approaches to natural resource damages?  
3 A I think -- I believe it was David Allen.  
4 Q You received -- again, going back to your  
5 background, you received a degree in natural 08: 40AM  
6 resource economics. Describe for me what natural  
7 resource economics entails.  
8 A It's actually a broad title for a number of  
9 different types of social science, economics  
10 investigations into looking at how economics can 08: 40AM  
11 play a role in understanding and evaluating natural  
12 resources.  
13 Q Do you consider yourself an economist?  
14 A Yes.  
15 Q Do you consider yourself a statistician? 08: 40AM  
16 A I'm familiar with statistics. I've had  
17 training in statistics. In certain areas I  
18 understand quite well statistics.  
19 Q Do you have any expertise in survey designs?  
20 A Yes. 08: 40AM  
21 Q What's your expertise? Describe for me your  
22 experience in survey designs.  
23 A I've worked on a number of surveys, both  
24 stated choice and revealed choice surveys, and have  
25 worked both with a number of different people and 08: 41AM  
0009  
1 myself alone on both developing, looking at and  
2 evaluating surveys.  
3 Q How many contingent valuation surveys have you  
4 been involved with?  
5 A Depending how you define contingent valuation, 08: 41AM  
6 at least five or six.  
7 Q How do you define contingent valuation?  
8 A I define it similar to as we used it in the  
9 study here, which is a class of studies that look at  
10 asking people questions about their willingness to 08: 42AM  
11 pay to try and evaluate their total value for  
12 natural resources.  
13 Q What other studies have you done where you've  
14 asked people about their willingness to pay for  
15 natural resource damages? 08: 42AM  
16 A There's a class of surveys or studies that are  
17 called -- some people call them conjoint; some

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18 people call them stated choice, choice experiment  
19 studies, they're all similar, and those in some  
20 instances ask people specifically about their  
21 willingness to pay and in other situations they ask  
22 information by which we can calculate individuals'  
23 willingness to pay. 08: 43AM

24 Q Okay. I'll repeat my question. What other  
25 studies have you been involved in where you asked 08: 43AM

0010  
1 people about their willingness to pay in connection  
2 with natural resource damages?

3 A Specifically you want the names of the  
4 studies?

5 Q Yes. 08: 43AM

6 A The Exxon Valdez oil spill, the southern  
7 California bight CERCLA site, the Cantara loop  
8 spill, the Mono Lake water investigation, the San  
9 Joaquin Valley wetlands investigation. Those were  
10 all specific contingent valuation format studies. 08: 44AM

11 Then stated choice conjoint-type studies  
12 include a study valuing individuals' information for  
13 different types of weather, a study looking at the  
14 public's value for protecting and restoring coral  
15 reefs, a study looking at the public's value of 08: 44AM  
16 protecting Wright whales from being injured, a study  
17 in southern Texas looking at fishermen's preferences  
18 for different types of restoration sites, and two  
19 other studies I'm not at liberty to speak more about  
20 right now. 08: 45AM

21 Q Let's talk a little bit about the studies  
22 you've characterized as contingent valuation  
23 studies. In the -- in those five studies, I think  
24 you listed five for me, did you undertake a similar  
25 survey to the one that Stratus did with respect to 08: 45AM

0011  
1 the Illinois River and Tenkiller Lake?

2 A Could you be more specific about what you mean  
3 undertake?

4 Q Did you survey the public about their opinions  
5 regarding willingness to pay? 08: 45AM

6 A In all of those studies there was some  
7 questions that asked people about whether or not  
8 they would be willing to spend a certain amount of  
9 money to implement a program to protect or improve  
10 the environment. The specific questions varied 08: 46AM  
11 across the different studies given the  
12 appropriateness to each of the studies.

13 Q In the Exxon Valdez study, how did you  
14 determine the economic value of the damage to the  
15 environment in that case? 08: 46AM

16 A Again, I was part of -- I was a very small  
17 part of a large team that worked on that study, and  
18 that study looked at using questions about people's  
19 willingness to implement a program that would  
20 protect from future oil spills similar to the Exxon  
21 Valdez oil spill and whether or not people felt they  
22 were willing to pay a certain amount of money to  
23 implement that program. 08: 47AM

24 Q What was the program that people were asked to  
25 implement during that case? 08: 47AM

0012  
1 A I'd have to go back and look specifically at  
2 it, but there was in general sort of two components

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3 to the program. There was an implementation of a  
4 protective booming fence around vessels, some extra  
5 escort vessels. It was sort of a multiple faceted  
6 program.

08: 47AM

7 Q And in that particular study, did you provide  
8 bid numbers to the survey recipients and ask them if  
9 they were willing to pay particular bid numbers?

10 A Again, I believe we did. I'd have to go back  
11 and look specifically at that study to identify  
12 whether there were -- how the bids were presented.

08: 47AM

13 Q What was your role in that study?

14 A I was a graduate student at the time for one  
15 of the principal investigators and worked on  
16 investigating some of the data for him and talked to  
17 him and attended some of the meetings that they were  
18 having when they were developing the study.

08: 48AM

19 Q Who were you a graduate student with?

20 A Dr. Hanemann.

08: 48AM

21 Q What about the southern California bight  
22 study; what was your role in that study?

23 A My role in that study was actually sort of  
24 dual or changed over time. Again, it was a study  
25 that started while I was a graduate student, and I

08: 48AM

0013

1 participated in focus groups, team meetings, again  
2 working under Dr. Hanemann, and during the ongoing  
3 process, I subsequently became a senior economist at  
4 NOAA in their natural resource damage assessment  
5 program, and NOAA was one of the co-founders of that  
6 study, and so I became one of the trustee  
7 investigators or one of the trustees overseeing that  
8 study, and then over time that study evolved more,  
9 and I became sort of the senior trustee economist,  
10 and since at the same time I became the Pacific  
11 branch manager for NOAA's natural resource damage  
12 assessment program, I was overseeing all of the  
13 damage assessment work that was being done on the  
14 West Coast of NOAA -- on the West Coast of the  
15 United States, so that was part of my  
16 responsibility, was overseeing and managing that  
17 project.

08: 49AM

18 Q When was the southern California bight study  
19 completed approximately?

20 A There were two phases to it. I think the  
21 first phase was completed in '94, '95, and then the  
22 second phase was undertaken in '99 or 2000, if I'm  
23 not mistaken, something about that, which was never  
24 completed because the case settled.

08: 49AM

25 Q And when was the Exxon Valdez study completed?

08: 50AM

0014

1 A It was started soon after the event in 1999 --  
2 1989, excuse me, and I think by '91 it was done.  
3 I'd have to go back and look specifically. I don't  
4 remember exactly.

5 Q You also mentioned a Cantara study?

08: 50AM

6 A Uh-huh.

7 Q When -- what was your role in that?

8 A Again, it was -- I think that was still when I  
9 was a graduate student, and it was a train spill of  
10 metam sodium into the Cantara River in northern  
11 California, and Professor Hanemann was retained by  
12 the State of California to work with them on  
13 developing a natural resource damage assessment, and

08: 51AM

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14 we developed -- we undertook and developed focus  
15 groups and developed preliminary surveys and 08: 51AM  
16 whatnot. So I helped in all that.

17 Q When was that study completed approximately?

18 A You know, I'd have to go back. That study was  
19 stopped because the State settled the case and --  
20 but I'd have to go back and look specifically about 08: 51AM  
21 when exactly that was. Sorry.

22 Q Okay, but it was -- you worked on it while you  
23 were a graduate student with Dr. Hanemann?

24 A Uh-huh.

25 Q What about the Mono Lake? 08: 51AM

0015

1 A Again, it was during my formal training when I  
2 was a graduate student. Dr. Hanemann was working on  
3 a contingent valuation survey looking at protecting  
4 different or having different levels of water in  
5 Mono Lake. It was a big water controversy in 08: 52AM  
6 California, and he was involved with that, and I  
7 helped do a lot -- my main role there was doing a  
8 lot of the statistical analysis on the contingent  
9 valuation data.

10 Q When -- during what years were you a graduate 08: 52AM  
11 student with Dr. Hanemann?

12 A I think I came to Berkley in 1983 or '84, I  
13 can't remember, and I left Berkley in 1993 when I  
14 was employed by NOAA.

15 Q So all the studies we've talked about so far, 08: 52AM  
16 your work on them was prior to 1993; correct?

17 A No. The southern California bight study I  
18 worked on both before and after 1993.

19 Q Correct, and after 1993 you were the NOAA 08: 53AM  
20 economist overseeing the study; correct?

21 A Uh-huh. I was one of them. I had a colleague  
22 also who worked on it.

23 Q You weren't actually doing the survey work on  
24 the southern California bight study, were you?

25 A What do you mean by doing the survey work? 08: 53AM

0016

1 Q You weren't surveying respondents?

2 A You mean myself personally was I out --

3 Q Yes.

4 A No. They hire -- as we did in this case, it's  
5 standard to hire survey research firms that go out 08: 53AM  
6 and conduct the surveys, and that's what they did  
7 there also.

8 Q And that would be a standard procedure;  
9 correct?

10 A Usually. It depends, but usually. 08: 53AM

11 Q What about the San Joaquin Valley wetlands  
12 study; when was that?

13 A Again, it was when I was a graduate student,  
14 and I think that was pretty early 1980s, so -- well,  
15 I guess it would be mid, '84, '85, somewhere around 08: 54AM  
16 there. I'd have to go back and look specifically.  
17 Sorry. I just don't remember the exact dates.

18 Q Have you been involved in any contingent  
19 valuation studies since the end of the southern  
20 California bight study up until you began work on 08: 54AM  
21 this project?

22 A Yes.

23 Q What?

24 A One I'm not at liberty to speak about, and



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25 another one that we started -- there are two that we 08: 54AM  
0017  
1 started investigating options to conduct contingent  
2 valuation studies and moved in different directions.  
3 Q So you did not actually conduct contingent  
4 valuation studies in these two investigations that  
5 you're not at liberty to talk about? 08: 55AM  
6 A You mean undertake them, complete them?  
7 MS. XIDIS: Object to form.  
8 Q Correct.  
9 A No.  
10 Q Did Stratus consult with any attorneys for the 08: 55AM  
11 plaintiffs prior to the lawsuit being filed in this  
12 case?  
13 A I don't know. I don't know who at Stratus has  
14 talked to the plaintiff attorneys, and I actually  
15 don't know when the lawsuit was filed here, so I 08: 56AM  
16 can't answer that question. I'm sorry.  
17 Q Were you aware that the lawsuit -- were you  
18 aware at the time the lawsuit was filed that the  
19 lawsuit was filed, you personally?  
20 MS. XIDIS: Objection to form. 08: 56AM  
21 A I actually can't follow the question. Sorry.  
22 Q Well, you know that a lawsuit was filed in  
23 this case; correct?  
24 A Yes.  
25 Q Did you know at the time the lawsuit was filed 08: 56AM  
0018  
1 that the lawsuit was being filed by the plaintiff's  
2 attorneys?  
3 A I actually don't know when the lawsuit was  
4 filed.  
5 Q I understand you don't know sitting here today 08: 56AM  
6 when the lawsuit was filed. My question is, were  
7 you consulted about the complaint at the time the  
8 complaint was filed?  
9 A I don't know.  
10 Q Okay. You don't recall any conversations with 08: 56AM  
11 plaintiff's attorneys about should we or should we  
12 not file a lawsuit in this case?  
13 A I don't remember that, but, again, I don't  
14 know when the complaint was filed, so I can't tell  
15 you whether I had conversations when the complaint 08: 57AM  
16 was filed.  
17 Q I'm not asking you for a point in time. I'm  
18 asking you if you consulted with plaintiff's  
19 attorneys about the advisability of filing a lawsuit  
20 in this case? 08: 57AM  
21 A I may have. I don't remember.  
22 Q You said a little bit earlier that you thought  
23 your first involvement in this matter was in 1986.  
24 Did I get that right?  
25 MS. XIDIS: Objection. 08: 57AM  
0019  
1 Q I mean 2006.  
2 A I said I wasn't specifically -- it was either  
3 late 2005 or early 2006. I can't remember  
4 specifically.  
5 Q And what was your first involvement in the 08: 57AM  
6 matter; what were you asked to do?  
7 A As I said before, I was asked to think about  
8 different approaches to investigating potential  
9 natural resource damages at the site.



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10 Q And who asked you to think about that? 08: 58AM  
 11 A As I said before, I think David Allen did.  
 12 Q Did you have any conversations with any of the  
 13 attorneys about potential approaches to natural  
 14 resource damages at about that same time?  
 15 A I might very well have. 08: 58AM  
 16 Q Did you talk to Joe Rice?  
 17 A Joe Rice? I can't say yes or no. I don't  
 18 specifically know whether I talked to Joe Rice.  
 19 Q Do you know who Joe Rice is?  
 20 A As I sit here today, I don't. 08: 58AM  
 21 Q Okay. How about Bill Norwood; do you know who  
 22 he is?  
 23 A I couldn't pick him out of a room. I don't  
 24 know who he is. I'm sorry.  
 25 Q Do you know if you've ever talked to him? 08: 58AM  
 0020  
 1 A I do not know if I've ever talked to him, no.  
 2 Q What about Fred Baker?  
 3 A I've talked to Fred Baker.  
 4 Q Okay. Did you talk to Fred Baker at the time  
 5 you were asked to assess natural resource -- to look 08: 59AM  
 6 at potential natural resource damages in this case?  
 7 A I might very well have, but I don't know  
 8 specifically.  
 9 Q What's Mr. Baker's role in this matter?  
 10 MS. XIDIS: Objection. 08: 59AM  
 11 A I don't know.  
 12 Q I'm going to -- you said I think earlier that  
 13 initially Mr. Allen at Stratus asked you to become  
 14 involved in this matter?  
 15 A I said I think Mr. Allen. 08: 59AM  
 16 Q What's Mr. Allen's role in connection with  
 17 Stratus' work in this matter?  
 18 A I don't know all of his role. Again, he's a  
 19 vice president at our company, and he's worked on a  
 20 suite of different projects, and so I don't speak to 08: 59AM  
 21 him about this project on a regular basis. So I  
 22 actually don't know what his role or what his role  
 23 at that time was.  
 24 Q Do you know who Kevin Boyle is?  
 25 A Yes. 09: 00AM  
 0021  
 1 Q What is Mr. Boyle's role in connection with  
 2 this project?  
 3 A I don't know specifically what his role is.  
 4 Q Have you had any conversations with Mr. Boyle  
 5 regarding this project? 09: 00AM  
 6 A Yes.  
 7 Q And you don't know specifically what his role  
 8 is?  
 9 A Well, he -- my understanding is he works for  
 10 the attorneys, and he's been engaged in sort of 09: 00AM  
 11 discussions with us about what we're doing and  
 12 understanding what we're doing.  
 13 Q How do you view your role in this project?  
 14 A It was multifaceted, I think my role. I did a  
 15 number of different activities on the project. I 09: 01AM  
 16 helped coordinate the project. I conducted  
 17 preliminary investigations. I helped with the  
 18 analysis of the results. I helped oversee and  
 19 coordinate the collection of survey data. I worked  
 20 in the report writing. I was a point of contact for 09: 01AM

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EXHIBIT Q

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21 the clients with the project team. I worked on --  
22 had discussions with different project team members.  
23 I had quite a diverse role.

24 Q When you say discussion with project team  
25 members, who do you view as members of the project

09: 01AM

0022

1 team?

2 A The primary team is myself, Dr. Bishop, Dr.  
3 Hanemann, Dr. Morey, Dr. Krosnick, Dr. Tourgangeau  
4 and Dr. Kanninen. That's who I consider to be the  
5 primary team.

09: 02AM

6 Q Who else is on the team who's not part of the  
7 primary team?

8 A There's a number of people at Stratus that  
9 have helped under my direction or other team  
10 members' directions, do work for us to prepare  
11 information, collect information. It's pretty  
12 standard practice in this arena to have junior staff  
13 help collect and do things.

09: 02AM

14 Q Is Mr. Boyle part of the project team?

15 A I don't consider him to be a primary team  
16 member, no.

09: 02AM

17 Q Did he comment on the study?

18 A Yes.

19 Q Did he provide comments to you?

20 A Yes.

09: 02AM

21 Q Were those comments written?

22 A I don't believe so. I think for the most part  
23 they were oral.

24 Q What comments did Mr. Boyle provide to you?

25 A He provided comments on a draft of the report

09: 03AM

0023

1 for clarity and editing and making sure we were  
2 clear in what we were trying to say. Those were  
3 mainly his comments. Most often he asked questions  
4 about what we were doing and why we were doing  
5 things.

09: 03AM

6 Q Did he have any input into the design of the  
7 contingent valuation study?

8 A I can't speak for other team members. In  
9 terms of myself, he attended some of the focus  
10 groups, and so he had provided us questions about  
11 things, so I would say he might have but I don't  
12 know specifically what.

09: 04AM

13 Q Was Mr. Boyle retained by Stratus?

14 A No.

15 Q Did Stratus pay Mr. Boyle?

09: 04AM

16 A No.

17 Q Was Stratus responsible for paying the core  
18 team members?

19 A The only core team member Stratus pays is Dr.  
20 Kanninen. All the others we don't have a contract  
21 with.

09: 04AM

22 Q Are you responsible, you personally  
23 responsible for submitting invoices to the attorneys  
24 in connection with the contingent valuation survey?

25 A I review Stratus Consulting's invoices. The

09: 05AM

0024

1 other invoices I do not review.

2 Q Okay. Do you know Bill Breffle?

3 A Yes, I do.

4 Q What was Mr. Breffle's involvement in the CV  
5 study, if anything?

09: 05AM

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6 A Dr. Breffle had almost no involvement in the  
7 contingent valuation study.  
8 Q Did Dr. Breffle have any involvement in  
9 Stratus' work on the Illinois River or Tenkiller  
10 Lake? 09: 05AM  
11 A Yes.  
12 Q What was his involvement in that?  
13 A We developed -- as is pretty common standard  
14 practice, we developed initial investigations to  
15 understand the Tenkiller Lake-Illinois River issues 09: 05AM  
16 before we sort of decided on any single path, and he  
17 was involved in some of that initial investigation.  
18 Q Do you know Lyle Caneday?  
19 A Lowell Caneday.  
20 Q Lowell, thank you. Do you know Mr. Caneday? 09: 06AM  
21 A Yes.  
22 Q What -- did Mr. Caneday have any involvement  
23 in Stratus' work on the Illinois River and Tenkiller  
24 Lake?  
25 A Again, during these initial preliminary 09: 06AM  
0025  
1 investigations, I believe Dr. Breffle worked with  
2 Dr. Caneday to understand better some of the uses of  
3 the region.  
4 Q When you say understand some of the uses of  
5 the region, what do you mean? 09: 06AM  
6 A Some of the uses associated with the natural  
7 resources in the region.  
8 Q So recreational uses associated?  
9 A There was recreation and other outdoor types  
10 of activities. 09: 07AM  
11 Q Do you know Dr. Mike Silver?  
12 A Yes.  
13 Q Did Dr. Silver have any involvement with the  
14 Illinois River and Tenkiller Lake? 09: 07AM  
15 A Dr. Silver worked on providing some social  
16 psychology evaluations and some literature reviews.  
17 Q Did he provide that social psychology  
18 evaluations and literature reviews to the team?  
19 A Primarily to Dr. Krosnick.  
20 Q And what was the purpose of his work? 09: 08AM  
21 A Twofold I think. First was helping with some  
22 literature reviews that were conducted and also  
23 helping with some standard processes to evaluate  
24 open-ended responses.  
25 Q When you say standard processes to evaluate 09: 08AM  
0026  
1 open-ended responses, explain to me what you mean by  
2 that.  
3 A In surveys, often you ask people open-ended  
4 responses, what did you know, things like that, and  
5 there's standard techniques for evaluating that 09: 09AM  
6 information. He's done a lot of that and he helped  
7 us develop that information.  
8 Q Mr. Chapman, I've handed you what's been  
9 marked as Deposition Exhibit No. 1, which is an  
10 E-mail dated December 9th, 2004 from Bill Breffle to 09: 09AM  
11 you. If you could take a moment to look at this  
12 document. This document is dated December 9th,  
13 2004. Would that indicate that you were at least  
14 initially involved in this matter as of December of  
15 2004? 09: 10AM  
16 A I certainly got this E-mail in 2004, so, yeah.

Chapman, David.txt

17 It's been a lot longer than I thought.  
 18 Q And the E-mail subject matter is OPL next  
 19 steps; do you see that?  
 20 A Uh-huh. 09: 10AM  
 21 Q That would refer to Oklahoma what; what does  
 22 OPL stand for?  
 23 A I think of it as Oklahoma poultry litter.  
 24 Q And it's referring to next steps from Mr.  
 25 Breffle to you. What was Mr. Breffle's role at this 09: 10AM  
 0027  
 1 time?  
 2 A I -- so his role was looking at and trying to  
 3 identify next steps on the project.  
 4 Q Had you been working on the Oklahoma poultry  
 5 litter project prior to December 9th, 2004? 09: 11AM  
 6 A I probably was. So I guess I'd have to say  
 7 before 2005 even, 2004 now. A lot has gone on, so I  
 8 just missed the date there.  
 9 Q This E-mail asks you to spend a day each  
 10 addressing certain questions. Do you see that? 09: 11AM  
 11 A Over the next two weeks spend a day, yeah.  
 12 Q And I take it you did spend a day addressing  
 13 these questions?  
 14 A I couldn't tell you. I couldn't tell you  
 15 whether it would be at least a day, a little bit 09: 11AM  
 16 more than a day. I know we talked about these  
 17 issues.  
 18 Q Okay. Do you know what had been done up until  
 19 this time in December 2004 on the Oklahoma poultry  
 20 litter matter? 09: 12AM  
 21 A I can't tell you specifically. I assume we  
 22 had some conversations. I assume we talked about  
 23 some activities, but I don't know specifically what  
 24 specific actions. I'd have to go back and look at  
 25 the records if you want a specific timeline. 09: 12AM  
 0028  
 1 Q Okay. In his first numbered paragraph, he  
 2 talks about minimum recreation work and more likely  
 3 than not, also total value work. Do you see that?  
 4 A This would include a minimum recreation work  
 5 and more likely than not, also total value work, 09: 12AM  
 6 yes.  
 7 Q What's your understanding what recreation work  
 8 means?  
 9 A It's -- again, like I said, often we undertake  
 10 preliminary investigations on a suite of 09: 12AM  
 11 evaluations, and recreation work, I don't know  
 12 specifically what he meant here by this, but what I  
 13 would imagine from conversations and what I take  
 14 from this right now is looking at recreation that  
 15 goes on in the region. 09: 13AM  
 16 Q And did you or did Stratus look at recreation  
 17 that went on in the region following this December  
 18 2004 E-mail?  
 19 A Yes.  
 20 Q And what does total value work refer to; 09: 13AM  
 21 what's your understanding of that term?  
 22 A Total value is a sort of standard phrase in  
 23 natural resource economics that talks about looking  
 24 at both use and non-use values for natural  
 25 resources. So you look at the total value of the 09: 13AM  
 0029  
 1 natural resources, not just any one category.

Chapman, David.txt

2 MS. XIDIS: Colin, can we mark this as an  
3 exhibit?  
4 MR. DEIHL: It's been marked.  
5 MS. XIDIS: Oh, okay. I guess just for 09: 14AM  
6 clarity of the Record then, Exhibit 1 is the Bill  
7 Breffle E-mail dated Thursday, December 9th, 2004.  
8 Q Mr. Chapman, I've handed you what's been  
9 marked as Deposition Exhibit No. 2, an E-mail dated 09: 14AM  
10 December 10th, 2004, from David Allen to a number of  
11 recipients, including yourself, regarding potential  
12 timelines for injury and economic studies; is that  
13 correct?  
14 A Yes, that's what it says here.  
15 Q And you received this E-mail on or about 09: 14AM  
16 December 10th, 2004?  
17 A Yes.  
18 Q Again, what's Mr. Allen's position?  
19 A He's a vice president in our firm.  
20 Q If you take a look at the first full sentence 09: 15AM  
21 of this E-mail -- I guess it's the second sentence,  
22 it says negotiations so far have been highly focused  
23 on the terms of a moratorium on litter spreading.  
24 Do you know what negotiations Mr. Allen is referring  
25 to? 09: 15AM  
0030  
1 A I do not.  
2 Q Were you involved in any negotiations?  
3 A I don't believe I was.  
4 Q If you read a little further on, it appears  
5 that he's talking about negotiations between the 09: 16AM  
6 State of Oklahoma and the potential defendants in  
7 this case. Is that how you read this E-mail?  
8 A I don't know where specifically. I haven't  
9 gotten to that part the E-mail yet.  
10 Q Okay. Why don't you take your time and look 09: 16AM  
11 at that.  
12 A Okay.  
13 MR. DEIHL: Could you read back the last  
14 question, please?  
15 (Whereupon, the court reporter read 09: 17AM  
16 back the previous question.)  
17 A There's a lot of things in this E-mail. Is  
18 there a specific location here?  
19 Q Well, if you look at the first full paragraph,  
20 it talks about the negotiations appear to me 09: 18AM  
21 unlikely to produce an agreement quickly enough to  
22 prevent the AG from filing early in 2005. Do you  
23 see that phrase?  
24 A The negotiations appear -- yes, I see that.  
25 Q Would that indicate to you that these 09: 18AM  
0031  
1 negotiations were occurring prior to the Attorney  
2 General of the State of Oklahoma filing this  
3 lawsuit?  
4 A I can't speak to what David was thinking here.  
5 Q Okay. So you just don't know? 09: 18AM  
6 A I really don't know. I'm sorry.  
7 Q Okay. In your review of this E-mail, did you  
8 see any mention of a contingent valuation  
9 methodology?  
10 A The total value study. 09: 19AM  
11 Q Okay. Is total value study the same as  
12 contingent valuation?

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13 A A contingent valuation is one of the methods  
 14 to conduct a total value study, yes.  
 15 Q Okay. It's one of the methods. There are 09: 19AM  
 16 other methods to conduct a total value study?  
 17 A You can, under certain conditions, use other  
 18 types of stated choice methods.  
 19 Q And what other types of stated choice methods  
 20 could you use? 09: 19AM  
 21 A Potentially you could use something like a  
 22 conjoint or choice experiment type thing to get at  
 23 total values.  
 24 Q And, again, explain to me what a conjoint is.  
 25 A A conjoint is another class of stated choice 09: 19AM  
 0032  
 1 questions, of stated choice approaches to  
 2 investigating economic values for just non-market  
 3 goods and, again, it's very similar. It poses  
 4 options to individuals. You set up scenarios where  
 5 you provide to individuals different goods that 09: 20AM  
 6 don't currently exist and you see how they trade off  
 7 and make choices among those different goods.  
 8 Q What's a choice experiment?  
 9 A It's another name for a conjoint.  
 10 Q Okay. Just the same thing, just a different 09: 20AM  
 11 name?  
 12 A Different people use different names, so it's  
 13 pretty much the same.  
 14 Q Okay. Who is Doug Beltman?  
 15 A Doug Beltman is another employee of Stratus 09: 20AM  
 16 Consulting.  
 17 Q What was his involvement in the Illinois  
 18 River-Tenkiller?  
 19 A I do not know.  
 20 Q Okay. How about Josh Lipton? 09: 20AM  
 21 A Josh Lipton is the CEO of Stratus Consulting.  
 22 Q And what was his involvement?  
 23 A I do not know.  
 24 Q Okay. You're familiar, are you not, with --  
 25 I'm going to use the word intercept study that was 09: 21AM  
 0033  
 1 done from Memorial Day 2006 to September 2007 on the  
 2 Oklahoma -- on the -- excuse me. You're familiar  
 3 with a study that was done from Memorial Day 2006 to  
 4 September 2007 in connection with Tenkiller Lake and  
 5 the Illinois River, are you not? 09: 21AM  
 6 A I'm familiar with the study we did. I don't  
 7 know if other studies were done.  
 8 Q That's what I'm talking about, the study that  
 9 Stratus did.  
 10 A Uh-huh. 09: 21AM  
 11 Q What was your involvement in that study?  
 12 A I coordinated. Dr. Breffle really led that  
 13 up; Dr. Breffle really led that effort up. I  
 14 coordinated with him, helped think about the problem  
 15 with him, and actually went out and helped during 09: 22AM  
 16 the initial data collection phase and sort of  
 17 pretesting, testing, making sure things were  
 18 working.  
 19 Q Describe how the survey was conducted for me.  
 20 A Can you be a little more specific about the 09: 22AM  
 21 survey?  
 22 Q I'm talking about the intercept survey that  
 23 was done in the summer of 2006.



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24 A There were multiple surveys.  
 25 Q Okay. Describe for me what you did in the 09: 22AM  
 0034  
 1 summer of 2006 under the supervision of Dr. Breffle.  
 2 A We counted users of the Tenkiller Lake and  
 3 Illinois River area at different locations, and we  
 4 actually interviewed a number of them with a short  
 5 simple interview to understand basic stuff about 09: 23AM  
 6 where they came from, what they were doing, how long  
 7 they had been there, what they thought about the  
 8 place.  
 9 Q Mr. Chapman, I've handed you what's been  
 10 marked as Deposition Exhibit No. 3. Can you 09: 23AM  
 11 identify this document for me?  
 12 A It looks to be the summary report of those  
 13 activities that we did during that time period.  
 14 Q Who drafted this summary report?  
 15 A The initial draft was done by Dr. Breffle, and 09: 24AM  
 16 then at my direction, one of our junior staff worked  
 17 on it a little bit, and then I worked on it also.  
 18 Q Is Dr. Briefly still employed with Stratus?  
 19 A No. He's a professor at the University of  
 20 Michigan now. 09: 24AM  
 21 Q Okay. When did he leave Stratus?  
 22 A This date thing --  
 23 Q Approximately. I don't need an exact date.  
 24 A I think a year and a half ago, something like  
 25 that, maybe two years ago, around that time. I'm 09: 24AM  
 0035  
 1 not sure.  
 2 Q Do you have an estimate of how much the  
 3 intercept survey cost to do?  
 4 A I don't have that number specifically. I  
 5 could probably try and calculate that with some 09: 25AM  
 6 records back at the office, but I don't have it  
 7 specifically.  
 8 Q So you would have records at the office that  
 9 would tell us that?  
 10 A I'd have to -- not specifically. I'd have to 09: 25AM  
 11 go back and look at people's timesheets because some  
 12 of this was done by in-house staff; some of it was  
 13 done by out-of-house staff, and so I would have to  
 14 go back and reconstruct that. I don't specifically  
 15 know that. 09: 25AM  
 16 Q Who paid for this survey?  
 17 A Ultimately I believe that the State of  
 18 Oklahoma but this is through our ongoing work on the  
 19 project.  
 20 Q And who conducted this survey during the 09: 25AM  
 21 summer of 2006?  
 22 A It was conducted by a number of people. A  
 23 number of people were involved in collecting the  
 24 information.  
 25 Q Was there a consultant that Stratus retained 09: 26AM  
 0036  
 1 to do the survey?  
 2 A We retained a number of individual contractors  
 3 to collect information for us to undertake  
 4 observations for us.  
 5 Q So Stratus retained those individual 09: 26AM  
 6 contractors?  
 7 A I believe we did, yes.  
 8 Q Okay. If you look at the introduction to this



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9 document, Deposition Exhibit No. 3, it talks -- it  
 10 says that the primary purpose of the Lake Tenkiller 09: 26AM  
 11 and Illinois River Recreational Use Study was to  
 12 obtain current estimates of recreational use on Lake  
 13 Tenkiller and the Illinois River and gain an  
 14 understanding of uses and attitudes towards the  
 15 river and lake. The study contained two parts: 09: 27AM  
 16 One, count of users at various recreation areas and,  
 17 two, an intercept survey of recreation users that  
 18 collected information on type and amount of use,  
 19 preferences, attitudes and from where users were  
 20 coming from. Is that your understanding of the 09: 27AM  
 21 primary purpose of this study?  
 22 A Uh-huh, yes. This, again, was part of the  
 23 preliminary investigations that we were undertaking  
 24 initial in the study to try and figure out what made  
 25 sense, what was going on with people out there, 09: 27AM  
 0037  
 1 pretty standard practice.  
 2 Q Okay, and that preliminary investigation, as  
 3 we saw, started sometime in 2004 or earlier;  
 4 correct?  
 5 A The initial discussions from those E-mails, 09: 28AM  
 6 you know, they were -- at least in December of 2004  
 7 we were starting to think about it.  
 8 Q Well, at least by December of 2004, you had  
 9 been consulted on it; correct?  
 10 A Like I said, my initial thoughts were thinking 09: 28AM  
 11 about and trying to figure out what we could do,  
 12 yes.  
 13 Q And here we are in the summer of 2006 and  
 14 you're still in this preliminary investigation  
 15 phase; is that correct? 09: 28AM  
 16 A Yeah.  
 17 Q Okay. How long did the preliminary  
 18 investigation phase last?  
 19 A I couldn't tell you. I mean, obviously  
 20 through 2005. I don't know for a fact whether this 09: 28AM  
 21 was sort of continuing steady pace all the way  
 22 through. Lots of these projects have initial  
 23 starts. People have to think about what they want  
 24 to do. They get back to us. So I can't tell you  
 25 whether it was continuous through 2005 or sort of 09: 28AM  
 0038  
 1 ebb and flow through 2005, but clearly things were  
 2 going on through 2005, and by 2006 we were prepared.  
 3 I mean, these take a while to come up with, to  
 4 develop, to develop the sampling plans, and also you  
 5 can't undertake a study like this any time of the 09: 29AM  
 6 year. You have to wait until there's people out  
 7 there. The recreational uses of the river occur  
 8 primarily from Memorial Day to Labor Day. Obviously  
 9 there's some outside of that time period, and so we  
 10 wanted to start during that period. So it's similar 09: 29AM  
 11 to sampling natural environments. You have to wait  
 12 until what you want to sample is there.  
 13 Q Okay, but you'd still consider this part of  
 14 your preliminary investigation?  
 15 A Yes. 09: 29AM  
 16 Q What steps did you use to develop the survey  
 17 that's reflected in this exhibit, Exhibit 3?  
 18 A Dr. Breffle was the primary developer of that  
 19 survey.

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20 Q So if I wanted to know what steps Stratus 09: 30AM  
 21 took, I'd have to talk to Dr. Breffle?  
 22 A No. I could tell you in general.  
 23 Q Okay.  
 24 A Identify the types of information you want to  
 25 collect, identify the way you want to collect it, 09: 30AM  
 0039  
 1 develop sort of the page format so it's easy to  
 2 undertake out in the field, have other people look  
 3 at it to make sure things are clear, try it out a  
 4 little bit to make sure that it's working the way  
 5 you think it should be working, and so those are 09: 30AM  
 6 sort of the general steps that you would normally  
 7 take and that we took here.  
 8 Q What types of information did you want to  
 9 collect with this intercept survey?  
 10 A As it says here in the introduction, it was 09: 31AM  
 11 the types and amount of use, preferences, attitudes  
 12 and from where users were coming from.  
 13 Q And why did you want to collect that  
 14 information?  
 15 A Again, as a preliminary investigation in 09: 31AM  
 16 these, often you want to understand at least one  
 17 component that is sometimes affected as users of the  
 18 resource, and we wanted to understand -- to the  
 19 degree there wasn't additional information out  
 20 there, we wanted to see whether or not this would 09: 31AM  
 21 be -- this information was available and how people  
 22 were looking at the resources and also to try out  
 23 and understand what it would be to actually  
 24 undertake a high quality intercept survey to count  
 25 people. 09: 32AM  
 0040  
 1 Q Why don't we take a break because I think the  
 2 tape needs to be changed.  
 3 A Okay.  
 4 Q We'll take a few minutes.  
 5 VIDEOGRAPHER: We're off the Record at 9:32 09: 32AM  
 6 a.m.  
 7 (Following a short recess at 9:32 a.m.,  
 8 proceedings continued on the Record at 9:42 a.m.)  
 9 VIDEOGRAPHER: We are back on the Record.  
 10 The time is 9:42 a.m. 09: 42AM  
 11 Q Mr. Chapman, before we took the break, we were  
 12 talking about the intercept survey that was done in  
 13 the summer of 2006. Can you describe what your  
 14 survey administration protocols were in connection  
 15 with that survey? 09: 43AM  
 16 A Could you be more specific about which survey?  
 17 Q Talking about the intercept survey that's  
 18 reflected in Deposition Exhibit No. 3.  
 19 A The protocol was to randomly identify  
 20 individuals and go up to them and ask them if they 09: 43AM  
 21 would be willing to answer a few questions.  
 22 Q Anything else beyond that?  
 23 A I'd have to go back to check specifically on  
 24 additional, whether there were any additional  
 25 protocols. We talked about not wanting to have 09: 44AM  
 0041  
 1 people -- you know, there are conditions if people  
 2 didn't feel safe, they shouldn't try and approach  
 3 people. So that's another example of one of the  
 4 protocols.

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5 Q Were the goals of the survey achieved? 09: 44AM  
6 A I'd say for the most part, yes.  
7 Q What did the survey reveal about the overall  
8 likes and dislikes of Tenkiller Lake and the  
9 Illinois River?  
10 A It would take me a little bit to go back and 09: 44AM  
11 look at this, and I'm happy to do that, but I'd have  
12 to go back and sort of look at this report to tell  
13 you specifically.  
14 Q Why don't you take a moment to do that, and  
15 I'd direct your attention to Page 9, which is -- 09: 45AM  
16 contains Table 2.  
17 A Okay.  
18 Q Do you recall the question?  
19 A Uh-huh.  
20 Q Can you answer the question? 09: 46AM  
21 A That there's a wide range of people's likes  
22 and dislikes and things they like and dislike about  
23 the Tenkiller Lake and Illinois River system.  
24 Q What were the two most common likes about  
25 recreating at Tenkiller Lake? 09: 46AM  
0042  
1 A As recorded here, the two most were natural  
2 beauty aesthetics and good water quality.  
3 Q When you say as recorded here, these are the  
4 results of this survey that Stratus conducted in the  
5 summer of 2006; correct? 09: 47AM  
6 A Yes.  
7 Q And the results of that survey that Stratus  
8 conducted in the summer of 2006 were that the two  
9 most common things people mentioned as liking about  
10 Tenkiller Lake were natural beauty aesthetics and 09: 47AM  
11 good water quality; correct?  
12 A The two most common categories that were  
13 checked by the interviewers were those. So they  
14 interviewed people and had to interpret what they  
15 were saying to put in these boxes, and that's what 09: 47AM  
16 they checked.  
17 Q But these aren't the answers of the  
18 interviewers; these are the answers of the  
19 interviewees; correct?  
20 A As the form shows, there were a bunch of 09: 47AM  
21 categories, and people circled them. So they were  
22 being interviewed. Somebody would say I liked or  
23 disliked this, and they would find something that  
24 was similar to that and circle it.  
25 Q So -- but the conclusion of the study was the 09: 48AM  
0043  
1 two most common likes were the natural beauty  
2 aesthetics and good water quality; correct?  
3 A Yes. Those two things are the most commonly  
4 circled.  
5 Q How many respondents specifically mentioned 09: 48AM  
6 they liked the water quality at Tenkiller Lake?  
7 A We didn't have a question specifically about  
8 did you like. The question -- yeah, we didn't have  
9 a question specifically about did you like.  
10 Q The Question No. 110 read, thinking 09: 49AM  
11 specifically about the Illinois River/Tenkiller  
12 Lake, are there one or two things that you  
13 particularly like or dislike about recreation here.  
14 That was the question; correct?  
15 A Yes. 09: 49AM

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16 Q And how many people said good water quality in  
 17 response to Tenkiller Lake?  
 18 A As shown in the table here, there would be 92  
 19 people that, in response to Tenkiller Lake, said  
 20 they -- where that was circled for them. 09: 49AM  
 21 Q Out of how many total respondents?  
 22 A The total respondents were 500 -- what was  
 23 it -- 395.  
 24 Q What was the most common dislike about  
 25 Tenkiller Lake? 09: 50AM  
 0044  
 1 A It looks like the category of that was visible  
 2 pollution was the most common dislike.  
 3 Q The actual answer was trash, oil, debris;  
 4 correct?  
 5 A That was the category we had for the 09: 50AM  
 6 interviewers to think about that one, so, yes.  
 7 Q Okay. The most common dislike was trash, oil,  
 8 debris; correct?  
 9 A Yes.  
 10 Q Was water quality mentioned as something 09: 50AM  
 11 visitors disliked about the area?  
 12 A Yes.  
 13 Q How many visitors mentioned poor water quality  
 14 as something they disliked about Tenkiller Lake?  
 15 A Again, here, it says there was eight. 09: 51AM  
 16 Depending on how you interpret odor, nine.  
 17 Q So only nine people mentioned either odor or  
 18 poor water quality as something they disliked about  
 19 Tenkiller Lake?  
 20 A Of the people we intercepted and interviewed 09: 51AM  
 21 there, yes.  
 22 Q And these are the people you intercepted or  
 23 interviewed during the summer of 2006; correct?  
 24 A Yes.  
 25 Q What about the Illinois River; how many 09: 51AM  
 0045  
 1 mentioned that they disliked the water quality at  
 2 the Illinois River?  
 3 A Six people that we interviewed said they  
 4 disliked the water quality.  
 5 Q How would you personally describe the overall 09: 52AM  
 6 impression visitors have of the Illinois River and  
 7 Tenkiller Lake based on the responses to this  
 8 survey?  
 9 A I'd say it varied, that there were people who  
 10 liked it, people who disliked it and, you know, from 09: 52AM  
 11 that intercept survey, I think that's what I would  
 12 say.  
 13 Q You're a -- you're familiar with these  
 14 surveys; correct?  
 15 A Yes. 09: 52AM  
 16 Q You do this for a living?  
 17 A Yes, I do.  
 18 Q Do you draw conclusions from surveys like this  
 19 about, you know, generally what the public thinks  
 20 about a particular water body? 09: 52AM  
 21 A Both from this information and understanding  
 22 both how the survey was collected and understanding  
 23 the limitations of these types of surveys, I can  
 24 draw those conclusions.  
 25 Q Okay, and this was a survey that was designed 09: 53AM  
 0046

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1 and implemented by Stratus; correct?  
2 A Yes, it was.  
3 Q So what conclusion do you draw from this  
4 survey about the overall impression visitors have of  
5 the Illinois River and Tenkiller Lake? 09: 53AM  
6 A Of the people that came here during this time,  
7 that there's a mix between things people like and  
8 dislike about the river and lake. Some of them have  
9 to do with the location of it. Some of it have to  
10 do with the physical attributes of it, and some of 09: 53AM  
11 it have to do with the environmental quality of it.  
12 Q Were you surprised that so few people  
13 mentioned poor water quality as a dislike as part of  
14 this intercept survey?  
15 A No. 09: 53AM  
16 Q Why weren't you surprised?  
17 A These are people who still continue to come to  
18 this resource because they like it. So to find out  
19 that the people who like it like it is not  
20 surprising. 09: 54AM  
21 Q Do you know whether or not the usage numbers  
22 at Tenkiller Lake has increased or decreased since  
23 the 1980s?  
24 A I don't know. I know I looked at some data a  
25 while ago, and I don't know specifically. I can't 09: 54AM  
0047  
1 remember how much it's changed over the years.  
2 Q Okay. Sitting here today, you just don't know  
3 whether it's increased or decreased?  
4 A My general perception is that it's increased,  
5 but I don't know. 09: 54AM  
6 Q Would that be important to you as a surveyor  
7 trying to figure out whether the public thinks  
8 there's a water quality problem at Tenkiller Lake  
9 whether the visitors have increased or decreased?  
10 A That information with a bunch of other 09: 55AM  
11 information would be helpful.  
12 Q So it would be a helpful factor?  
13 A Yeah, it could be.  
14 Q And if the visitation has increased, how would  
15 that affect your opinion about the public's 09: 55AM  
16 attitudes concerning Tenkiller Lake?  
17 A Again, one would have to understand that in  
18 context with a number of other issues associated  
19 with it in terms of just general population changes,  
20 changes in other sites and other locations, and so 09: 55AM  
21 just that number alone, you cannot draw any  
22 conclusions.  
23 Q I understand that it's one of a number of  
24 factors you might look at. How would that factor be  
25 weighed if you were looking at that factor? Weighed 09: 55AM  
0048  
1 is the wrong word. I mean, let me try again. I  
2 take it you think it is a factor that should be  
3 considered when you're surveying the public about  
4 their attitudes towards a particular water body, in  
5 this case Tenkiller Lake; correct? 09: 55AM  
6 MS. XIDIS: Objection to form.  
7 A Could you repeat it? I'm sorry, I don't  
8 understand the question.  
9 Q Is the visitation use of a resource a factor  
10 that should be considered if you're trying to 09: 56AM  
11 determine damages to a particular water body?

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12 A If I'm looking to measure damages at a  
13 particular water body, visitation could be one of  
14 the things to consider.  
15 Q Did Stratus consider it in connection with 09: 56AM  
16 this project?  
17 A We did this study to look at that, and I know  
18 we collected --  
19 Q This study didn't look at visitation rates;  
20 correct? 09: 56AM  
21 A Yes, it did.  
22 Q Oh, it did. So you measured change in  
23 visitation from the 1980s to the present?  
24 A No. We measured visitation during this period  
25 of the study. 09: 57AM  
0049  
1 Q Okay, but you didn't compare it to any other  
2 period of time; correct?  
3 A Not in this study here, no, we didn't.  
4 Q At any point in time did you look at the  
5 change in visitation to these water resources -- 09: 57AM  
6 A Yes.  
7 Q -- over time?  
8 A Yes.  
9 Q Where did you do that?  
10 A Looking at available statistics, talking to 09: 57AM  
11 people in the region, talking to resource managers.  
12 So we looked at a number of different sources of  
13 available data.  
14 Q And what conclusion did you reach based on  
15 that data? 09: 57AM  
16 A That overall, visitation was increasing.  
17 Q Why did you not include the results of this  
18 intercept survey in your CV report?  
19 A It wasn't relevant to the CV report.  
20 Q Why not? 09: 58AM  
21 A Because the CV report did its own sampling and  
22 focused on total values, and this information just  
23 wasn't relevant to it.  
24 Q So to -- what were you trying to determine in  
25 the CV report, in the CV study? 09: 58AM  
0050  
1 A The CV study used commonly accepted and  
2 practiced methods of calculating the value that the  
3 public in Oklahoma placed on not having the Illinois  
4 River and Tenkiller Lake in the state it will be in.  
5 Q In the state it will be in? 09: 59AM  
6 A In the environmental conditions as described.  
7 Q So it's -- the purpose of the CV study is to  
8 calculate the value that the public in Oklahoma  
9 placed on having the Illinois River and Tenkiller  
10 Lake in the environmental condition as described in 09: 59AM  
11 the contingent valuation study?  
12 A For not having. It's the measure -- it's a  
13 total value measure of damages, one of the  
14 categories. It's not comprehensive, but it covers  
15 many of the categories. 09: 59AM  
16 Q And you didn't find it relevant to the  
17 contingent valuation study what the users of the  
18 resource thought about the condition of the  
19 resource?  
20 A In the contingent valuation study, there are 10: 00AM  
21 both users and non-users of the resource, and their  
22 opinions and views are presented in the contingent

Page 21

EXHIBIT Q



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23 valuation study.  
 24 Q When you say their opinions and views are  
 25 presented in the contingent valuation study, whose 10: 00AM  
 0051  
 1 opinions and views?  
 2 A The users and non-users of the Tenkiller Lake  
 3 and the Illinois River system.  
 4 Q And the recreation intercept study also  
 5 evaluates the opinions of the users of Tenkiller 10: 00AM  
 6 Lake and the Illinois River; correct?  
 7 A Yes, to some degree.  
 8 Q Okay. So why wouldn't you refer to the  
 9 results contained in the intercept study when  
 10 looking at the use value that users reflect in the 10: 01AM  
 11 contingent valuation study?  
 12 A This is a biased limited view of that.  
 13 Q Why is it a biased and limited view?  
 14 A Because it only collects information from a  
 15 subset of the public of Oklahoma, which is users who 10: 01AM  
 16 continue to use the Illinois River and Tenkiller  
 17 Lake. It also includes people from out of state who  
 18 use the Tenkiller Lake and the Illinois River, and  
 19 so this is not directly comparable to the  
 20 information collected in the contingent valuation 10: 01AM  
 21 study.  
 22 Q So you consider it to be a biased view to talk  
 23 to the individuals who actually use the resource and  
 24 an unbiased view to talk to individuals who may have  
 25 never used the resource? 10: 01AM  
 0052  
 1 MS. XIDIS: Object to the form.  
 2 A Could you please repeat?  
 3 Q You consider it biased to talk to the  
 4 individuals who actually used the resource and  
 5 unbiased to talk to individuals who have never used 10: 02AM  
 6 the resource?  
 7 MS. XIDIS: Same objection.  
 8 A That's not what I said.  
 9 Q Okay. Well, you said this is a biased view;  
 10 correct? 10: 02AM  
 11 A I said this is a -- yeah, I said a biased  
 12 view.  
 13 Q Okay. This is a biased view, and these --  
 14 this survey surveyed the people who were using this  
 15 resource in the summer of 2006; correct? 10: 02AM  
 16 A Yes.  
 17 Q Okay, and it's -- and why is it a biased view?  
 18 A Because it doesn't fully represent the total  
 19 views of all the people of Oklahoma about this  
 20 resource. 10: 02AM  
 21 Q So the people who are most familiar with the  
 22 resource, the people who are actually using the  
 23 resource in the summer of 2006, that's considered a  
 24 biased view, but those people who may not have used  
 25 the resource during the summer of 2006 or at any 10: 02AM  
 0053  
 1 time, you surveyed those people and that's an  
 2 unbiased view; is that your testimony here?  
 3 MS. XIDIS: Object to the form.  
 4 A No.  
 5 Q Why is it less biased to do a contingent  
 6 valuation survey than an intercept survey? 10: 03AM  
 7 A It has nothing to do about that. It has to do



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8 about the sampling and the approach to sampling.  
 9 Q Okay. Explain to me why this is more biased.  
 10 A Because it only intercepts people who are at 10: 03AM  
 11 the site. It's not representative of the average  
 12 Oklahoman.  
 13 Q Which people know more about the site, those  
 14 who use the resource or those who may not have used  
 15 the resource in your opinion? 10: 03AM  
 16 MS. XIDIS: Object to form.  
 17 A That's an individual-by-individual basis. I  
 18 can't tell you what a specific individual knows  
 19 about the resource.  
 20 Q I personally have never been to Tenkiller Lake 10: 03AM  
 21 or the Illinois River. If you were to survey me  
 22 about that, do you think my opinion would be more  
 23 representative of someone than someone who uses the  
 24 resource on a regular basis?  
 25 MS. XIDIS: Objection to form. 10: 04AM  
 0054  
 1 A Could you repeat, please?  
 2 Q Yeah. Let's take, you know -- let's take an  
 3 individual who has never been to Tenkiller Lake for  
 4 whatever reason and you survey that person about  
 5 their attitudes towards Tenkiller Lake, and then you 10: 04AM  
 6 survey another person who uses the resource on a  
 7 regular basis. Whose opinion is more valuable to  
 8 you as a surveyor in determining damage to Tenkiller  
 9 Lake and the Illinois River?  
 10 A They're both important. 10: 04AM  
 11 Q There's no weight given to the person who uses  
 12 the resource more frequently?  
 13 A I would want to understand the opinions and  
 14 views of both of those people.  
 15 Q So for you trying to determine the use value 10: 05AM  
 16 and non-use value of this resource, it wouldn't  
 17 matter to you whether the person uses the resource  
 18 or not?  
 19 MS. XIDIS: Objection.  
 20 A Wanting to understand -- my wanting to 10: 05AM  
 21 understand the total value of the resource, I would  
 22 want to know both users and non-users of the  
 23 resource, and that's what we did in our study.  
 24 Q Are you familiar with any literature on using  
 25 or combining the results of surveys based on actual 10: 05AM  
 0055  
 1 behavior with those based on stated preferences?  
 2 A Yes.  
 3 Q Tell me about the literature that you're  
 4 familiar with.  
 5 A There's a suite of studies -- this was 10: 05AM  
 6 actually the topic of my dissertation before I  
 7 didn't finish it. There's a suite of studies that  
 8 looked at combining revealed and stated preference  
 9 data and the various different ways those are  
 10 collected to see if you can bring together that 10: 06AM  
 11 information.  
 12 Q And what do those suite of studies conclude;  
 13 what's your conclusion based on those suite of  
 14 studies?  
 15 A It's another approach to evaluating economic 10: 06AM  
 16 data. It's just another one of the tools in the  
 17 economist's toolbox.  
 18 Q Okay. What was your dissertation about?

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19 A Combining information on recreational fishing  
20 with choices about additional recreational fishing 10: 07AM  
21 in -- under certain different conditions, and so it  
22 was a survey of actual recreational fishermen and a  
23 survey of people who would like different  
24 recreational fishing conditions in the future and  
25 how you could bring that information together. 10: 07AM

0056  
1 Q I'm not sure I completely understand what you  
2 just said, but if I -- let me try. You would go out  
3 and you would field survey recreational fishermen;  
4 is that one part of what one would do?

5 A Yes. 10: 07AM

6 Q And then the other part of what one would do  
7 is one would do a survey of those who might not be  
8 recreational fishermen?

9 A The general population.

10 Q Which would include some recreational 10: 08AM  
11 fishermen and others who are not?

12 A Yes.

13 Q And then you would bring those two studies  
14 together in some way?

15 MS. XIDIS: I'm just going to object to 10: 08AM  
16 form here, that we're very hypothetical. Are you  
17 asking about the dissertation topic itself?

18 MR. DEIHL: Yes, I'm asking about his  
19 dissertation.

20 MS. XIDIS: Or a study that was done? 10: 08AM

21 MR. DEIHL: No. I'm asking about Mr.  
22 Chapman's actual dissertation.

23 A Again, I never completed it.

24 Q I understand. I just want to understand what  
25 you were working on at the time you were working on 10: 08AM

0057  
1 it.

2 A Yes.

3 Q So you would -- your dissertation topic was  
4 you would survey actual fishermen, correct,  
5 recreational fishermen, and then you would do a 10: 08AM  
6 survey of the general public, two different surveys  
7 I take it?

8 A Yes.

9 Q Okay, and then you would bring those two  
10 surveys together to reach a conclusion? 10: 08AM

11 A That's one of the things you could do with the  
12 data, yes.

13 Q And what was the purpose of your dissertation;  
14 to describe how you would do that?

15 A It was at the time to show some fancy new 10: 09AM  
16 statistical techniques is what it was.

17 Q Okay, and were you in the process of creating  
18 those fancy new statistical techniques in connection  
19 with your dissertation?

20 A Yes. 10: 09AM

21 Q Did you consider using those techniques or  
22 bringing together these two studies with respect to  
23 the Tenkiller Lake-Illinois River?

24 MS. XIDIS: Objection.

25 A Could you be more specific, please? I'm 10: 09AM

0058  
1 sorry.

2 Q Let me try again. It wasn't a very good  
3 question. In connection with the Illinois River,

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4 you did this intercept survey, Deposition Exhibit 3;  
5 correct? 10: 10AM  
6 A Uh-huh.  
7 Q And then you also did a contingent valuation  
8 survey; correct?  
9 A Yes.  
10 Q Did you consider bringing those two surveys 10: 10AM  
11 together to determine damages in connection with  
12 Tenkiller Lake and the Illinois River in this case?  
13 A No, I never did.  
14 Q But that was the sort of thing that you were  
15 looking at in connection with your dissertation; 10: 10AM  
16 correct?  
17 A It was a totally different type of dataset.  
18 So there it was appropriate. Here I couldn't tell  
19 you whether it would be appropriate or not.  
20 Q Theoretically it's the same concept; correct? 10: 10AM  
21 MS. XIDIS: Objection to form.  
22 A I don't know how far afield of theory I have  
23 to go to say they are combined but I --  
24 Q You did have current users in your contingent  
25 valuation survey; correct? 10: 11AM  
0059  
1 A I believe we do have some current users, yes.  
2 Q And you asked those current users about  
3 recreation use; correct?  
4 A Very generally we asked them about recreation  
5 use. 10: 11AM  
6 Q Couldn't you just have compared the responses  
7 of the users in the contingent valuation survey to  
8 the responses of the users in this intercept survey?  
9 A I don't think we did that.  
10 Q I know you didn't do it. You could have done 10: 11AM  
11 it, could you not have?  
12 A I'd have to think about why one would want to  
13 do that and what it would tell you, and I can't  
14 think of a reason why you'd want to do that right  
15 now. 10: 11AM  
16 Q Why would one not want to do that, Mr.  
17 Chapman?  
18 A It's -- it's whether or not it made sense to  
19 do, and I can't tell you right now whether it made  
20 sense to do it or not. 10: 12AM  
21 Q Well, you have two different datasets  
22 surveying users of this resource; correct; you have  
23 the intercept survey and your contingent evaluation  
24 survey with respect to recreation users; right?  
25 A Yes. 10: 12AM  
0060  
1 Q So why wouldn't you look at both sets of data  
2 in reaching the conclusions you reached in this  
3 case?  
4 A I'm not saying you wouldn't. I'm just saying  
5 we didn't. 10: 12AM  
6 Q Okay. Why didn't you?  
7 A To me personally, at the time it didn't make  
8 sense. I can't tell you whether other people looked  
9 at it or not.  
10 Q Why didn't it make sense to you personally? 10: 12AM  
11 A Because there are just different pieces of  
12 information. I can't answer the question because I  
13 didn't do it, so I can't tell you why I didn't do it  
14 because I didn't consider it to be something that

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15 was necessary to do at the time. 10: 13AM  
 16 Q You'd agree with me that bringing in data from  
 17 the intercept survey and user data from the  
 18 contingent valuation survey would be analogous to  
 19 the research that you were doing in your  
 20 dissertation study on surveying recreational 10: 13AM  
 21 fishermen and surveying the general population?  
 22 MS. XIDIS: Object to form.  
 23 A No.  
 24 Q Why not?  
 25 A They are very different types of approaches. 10: 13AM  
 0061  
 1 Q Why?  
 2 A Because they're designed completely  
 3 differently.  
 4 Q When you say they, what are you referring to?  
 5 A The study designed to combine those two pieces 10: 14AM  
 6 of information versus two independent studies not  
 7 designed to bring them together are very different  
 8 studies.  
 9 Q And which one was not designed to bring them  
 10 together? 10: 14AM  
 11 A We did not design the contingent valuation  
 12 study here to be combined with this recreational  
 13 data, nor did we design this recreational data to be  
 14 combined with the contingent valuation study.  
 15 Q And why didn't you do that? 10: 14AM  
 16 A We just didn't.  
 17 Q Did you think about doing that?  
 18 A I told you before, I didn't think about it.  
 19 Q Okay. Did anyone on your team talk about it?  
 20 A I don't know if they did or didn't. 10: 14AM  
 21 Q Do you recall being part of any conversation  
 22 at which people talked about combining the two  
 23 surveys?  
 24 A I don't remember that, no.  
 25 Q Did it occur to you that that might be a good 10: 14AM  
 0062  
 1 idea to get more accurate test results here?  
 2 A I didn't say anything about accuracy.  
 3 Q Okay. My review of the CV survey is that you  
 4 only asked a few questions about recreation in that  
 5 survey. Why did you ask so few questions about 10: 15AM  
 6 recreation in the contingent valuation survey?  
 7 A Because that was not the focus of the  
 8 contingent valuation survey.  
 9 Q Wasn't a part of the contingent valuation  
 10 survey to determine use values in connection with 10: 15AM  
 11 the Illinois River and Tenkiller Lake?  
 12 A Not separately or specifically, no.  
 13 Q Did you engage anyone to provide peer review  
 14 for your surveys?  
 15 A Me personally? 10: 16AM  
 16 Q No. The Stratus team.  
 17 A The Stratus team did not engage anyone for  
 18 peer review.  
 19 Q So no one peer reviewed the contingent value  
 20 suggestion survey? 10: 16AM  
 21 A I didn't say that.  
 22 Q Did anyone peer review the contingent  
 23 valuation survey?  
 24 A Yes.  
 25 Q Who peer reviewed it? 10: 16AM

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0063

1 A Dr. Carrie Fisher -- Carrie Fisher -- Dr.  
 2 Kerry Smith and Dr. Norman Bradburn, and I would  
 3 say -- those are the two I know of. I don't know if  
 4 other peer reviews were done.  
 5 Q Didn't those peer reviewers recommend looking 10: 16AM  
 6 at the use data?  
 7 A Those peer reviewers, both of them, no.  
 8 Q Did Dr. Smith recommend looking at the use  
 9 data?  
 10 A I think he did. 10: 17AM  
 11 Q Did Dr. Bradburn?  
 12 A I don't know if he did or didn't. I don't  
 13 believe he did.  
 14 Q In light of Dr. Smith's recommendation that  
 15 you look at the use data, why didn't you do so? 10: 17AM  
 16 A We did look at the use data. I told you that  
 17 before.  
 18 Q Why didn't you incorporate the use data from  
 19 the intercept study into your contingent valuation  
 20 study? 10: 17AM  
 21 A We just didn't.  
 22 Q The intercept survey, Deposition Exhibit 3  
 23 that we've been looking at, was completed in the  
 24 summer of 2006; right?  
 25 A In the fall. 10: 18AM

0064

1 Q Summer to fall of 2006?  
 2 A Uh-huh.  
 3 Q Okay, and following that, you developed a  
 4 telephone survey; correct?  
 5 A Yes. 10: 18AM  
 6 Q What new information did you hope to gain from  
 7 the telephone survey that you hadn't garnered in the  
 8 intercept survey?  
 9 A Again, the telephone survey was not of just  
 10 users or not users. They were of the general 10: 18AM  
 11 public, and we were trying to gather additional  
 12 information about people's understandings of the  
 13 Tenkiller Lake and Illinois River system.  
 14 Q So if I understood your answer correctly, the  
 15 telephone survey provided you with additional 10: 19AM  
 16 information about people's understanding of the  
 17 Illinois River and Tenkiller Lake, correct, and it  
 18 also was a survey of the general public and not just  
 19 users?  
 20 A Yes. 10: 19AM  
 21 Q Were those the two main reasons you wanted to  
 22 do the telephone survey?  
 23 A Those are the two that come to mind right  
 24 away.  
 25 Q Okay. What was your personal involvement in 10: 19AM

0065

1 the telephone survey?  
 2 A Thinking about the goals of the study and  
 3 helping facilitate administration of it and  
 4 reviewing results were the main things.  
 5 Q Besides yourself, who else was involved in 10: 20AM  
 6 thinking about the goals of the telephone survey?  
 7 A Different members of the team. I can't  
 8 remember specifically exactly which ones, but  
 9 myself, Dr. Bishop, Dr. Krosnick, Dr. Tourangeau,  
 10 the others I think were probably involved to some 10: 21AM

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11 degree, too, not Kanninen but the others.  
 12 Q Shifting gears on you a little bit, going back  
 13 to this intercept survey that was done in the summer  
 14 of 2006, who was involved in thinking about the  
 15 goals of that survey? 10: 21AM  
 16 A That was primarily myself and Dr. Breffle.  
 17 That was done before the formation of the study  
 18 team, and I think Dr. Breffle talked to Dr.  
 19 Tourangeau about some of the sampling issues.  
 20 Q Do you consider the telephone survey to be 10: 22AM  
 21 still part of the preliminary evaluation that  
 22 Stratus was making?  
 23 A Yes.  
 24 Q Okay. So all of these surveys were still part  
 25 of this preliminary evaluation? 10: 22AM  
 0066  
 1 A Helping inform us, yes.  
 2 Q Okay. When was the telephone survey  
 3 conducted; do you recall?  
 4 A It's the date thing again. Sorry.  
 5 Q It's okay. 10: 22AM  
 6 A Sometime I would imagine in -- wow, I don't  
 7 remember whether it was 2006 or 2007. It was fairly  
 8 early on, but I couldn't tell you specifically. I'm  
 9 sorry.  
 10 Q That's okay. It's not a date test. Just 10: 22AM  
 11 trying to put it in order. What was -- besides you,  
 12 was anyone else from Stratus involved in development  
 13 of the telephone survey?  
 14 A I couldn't say no, but I don't know. Off the  
 15 top of the my head it doesn't specifically come to  
 16 me who. 10: 23AM  
 17 Q Who actually conducted the telephone survey?  
 18 A We hired a subcontracting firm to do that.  
 19 Q What was their name?  
 20 A I think we use Consumer Logic, if I'm not 10: 23AM  
 21 mistaken.  
 22 Q Was Consumer Logic a subcontractor to Stratus?  
 23 A Yes. We hired them.  
 24 Q Who from Stratus worked with Consumer Logic?  
 25 A I worked with them, and I've got to believe 10: 23AM  
 0067  
 1 someone else did, but I can't remember specifically  
 2 who that was. There was a couple of people working  
 3 on things.  
 4 Q Mr. Chapman, I've handed you what's been  
 5 marked for purposes of identification as Deposition  
 6 Exhibit No. 4. Can you identify this document? 10: 24AM  
 7 A It's titled Oklahoma Watershed Short Telephone  
 8 Survey Report.  
 9 Q Were you involved in preparing this report?  
 10 A Yes, I was. 10: 24AM  
 11 Q Did you write the report?  
 12 A I wrote parts of it and reviewed it.  
 13 Q If you'll take a look at Page 5 of the report,  
 14 there's a section entitled Sampling Methods, Section  
 15 1.3.1; do you see that? 10: 25AM  
 16 A Yes.  
 17 Q And at the bottom of that page it indicates  
 18 that the survey was conducted from November 1st,  
 19 2006 to November 14th, 2006; do you see that?  
 20 A Yes. 10: 25AM  
 21 Q Does that refresh your recollection as to when



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22 the survey was conducted?

23 A I believe that to be accurate.

24 Q Mr. Chapman, I've handed you what's been  
25 marked as Deposition Exhibit No. 5 from David Page

10: 26AM

0068

1 to Richard Bishop with a copy to you dated September  
2 2nd, 2006. Do you see that?

3 A I see that I'm the CC, yes.

4 Q Okay. Who is Mr. Page?

5 A I believe David Page is one of the attorneys  
6 in this case.

10: 26AM

7 Q Have you ever spoken with Mr. Page?

8 A Yes.

9 Q And below the top E-mail is an E-mail dated  
10 September 1st from Richard Bishop to David Page with  
11 a copy to you; do you see that?

10: 26AM

12 A I see that.

13 Q Who is Mr. Bishop?

14 A Dr. Bishop is one of the study team members.  
15 He's a very well-known resource economist.

10: 27AM

16 Q In the E-mail from Dr. Bishop to David Page  
17 entitled more on economics, Dr. Bishop is citing a  
18 section from the DOI guidelines. Do you see that?

19 A Yes.

20 Q And it's talking about contingent valuation  
21 methodology; do you see that?

10: 27AM

22 A Yes.

23 Q And at the bottom of the page Dr. Bishop  
24 actually cites a portion of the regulation; do you  
25 see that?

10: 28AM

0069

1 A Yes.

2 Q And he is citing to what he calls Part B,  
3 which states the use of the contingent valuation  
4 methodology to explicitly estimate option and  
5 existence values should be used only if the  
6 authorized official determines that no use values  
7 can be determined. Do you see that?

10: 28AM

8 A I do see that.

9 Q Do you have an understanding of who the  
10 authorized official would be with respect to  
11 Tenkiller Lake and the Illinois River?

10: 28AM

12 A I note on the history of this, of course, that  
13 this section of the reg was invalidated by a court  
14 ruling, and recently last year they finally got  
15 around to updating their rules and took this section  
16 out. So at the time this was an irrelevant part of  
17 the rules.

10: 29AM

18 Q It was irrelevant at the time or irrelevant  
19 now?

20 A It was not -- it was not in compliance with  
21 the court order about how the rules should be done.

10: 29AM

22 Q Okay. My question was, who is the authorized  
23 official; is that the -- who is the trustee for  
24 these waterways?

25 A I don't specifically know in Oklahoma who the

10: 29AM

0070

1 trustee for these waterways is. It would be some  
2 State-designated official.

3 Q Did you have a discussion at this time about  
4 whether or not the use of contingent valuation  
5 methodology was an acceptable methodology?

10: 30AM

6 A With anyone?



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7 Q Yeah, with anyone, with the team.  
 8 A I can't tell you whether specifically at this  
 9 time we had a discussion about whether or not  
 10 contingent valuation was an acceptable methodology. 10: 30AM  
 11 Q Did you have a discussion at any time with the  
 12 team about whether contingent valuation was an  
 13 acceptable methodology?  
 14 A Yes.  
 15 Q Tell me about those discussions. 10: 30AM  
 16 A We discussed whether or not it was acceptable,  
 17 whether or not it would be appropriate.  
 18 Q Okay. Was there disagreement on the team  
 19 about whether or not contingent valuation was  
 20 acceptable and/or appropriate? 10: 30AM  
 21 A No. I mean, we had discussions. We debated  
 22 about pros and cons and what would need to be done,  
 23 and we did not have a -- there was no -- I can't  
 24 remember what was the phrasing you used, but the  
 25 team thought it was an appropriate method. 10: 31AM  
 0071  
 1 Q Okay. You said you talked about the pros and  
 2 cons. What were the pros associated with contingent  
 3 valuation?  
 4 A It was a method that was available to address  
 5 comprehensively the total values associated with the 10: 31AM  
 6 site. It was both -- it would both get use and  
 7 non-use values associated with the site and changes  
 8 in the environmental quality of the site.  
 9 Q And what were the cons?  
 10 A They are -- take a big team of people to do. 10: 31AM  
 11 They are a commitment of time and energy to  
 12 undertake effectively, and those are some of the  
 13 cons.  
 14 Q Anything else?  
 15 A There's -- I can't remember other ones we 10: 32AM  
 16 talked about. We talked about a suite of things I  
 17 would imagine, but I can't remember specifically the  
 18 cons we talked about right now.  
 19 Q Okay. In response to this E-mail from Mr.  
 20 Bishop in September of 2006, did you have any 10: 32AM  
 21 conversations with -- excuse me. I keep calling him  
 22 mister -- with Dr. Bishop regarding the meaning of  
 23 this Provision B that you said was later interpreted  
 24 by a court case?  
 25 A I can't specifically tell you if I had a 10: 33AM  
 0072  
 1 specific conversation about this specific issue.  
 2 Q Okay.  
 3 A I can't tell you.  
 4 Q I've handed you what's been marked as  
 5 Deposition Exhibit 6, which is an October 13, 2006 10: 34AM  
 6 E-mail from Laura Cross at Stratus Consulting to  
 7 Ronald French, and you were copied on this E-mail.  
 8 Do you see that?  
 9 A Yes, I do.  
 10 Q And this E-mail is regarding a meeting that 10: 34AM  
 11 was to be held October 24th through the 27th; do you  
 12 see that?  
 13 A For a meeting?  
 14 Q Uh-huh.  
 15 A I'm not sure. Is this further down? Let's 10: 34AM  
 16 see.  
 17 Q If you look at the next page, the bottom

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18 E-mail on the chain --  
 19 A Okay.  
 20 Q -- this was concerning a meeting that was to 10: 35AM  
 21 be held October 25th through the 26th of 2006; do  
 22 you see that?  
 23 A Yes.  
 24 Q And there are a number of recipients on the  
 25 E-mail from David Page dated October 2, 2006 that's 10: 35AM  
 0073  
 1 on the second page. There's a whole train of  
 2 E-mails here. Do you see that bottom E-mail?  
 3 A The one that's Monday, October 2nd, 2006 at  
 4 4:26 p.m.?  
 5 Q Yes. 10: 36AM  
 6 A Yes.  
 7 Q We've talked about some of these people but we  
 8 haven't talked about all of them. Who is V.  
 9 Harwood?  
 10 A I don't know specifically. I believe it's a 10: 36AM  
 11 natural scientist but I don't know specifically.  
 12 Q Okay. Who is Jan Stevenson?  
 13 A Again, he's one of the natural scientists.  
 14 Q How about Denny Cooke?  
 15 A I think he's one of the natural scientists or 10: 36AM  
 16 a modeler. I can't remember.  
 17 Q How about E. B. Welch?  
 18 A Again, he's a natural scientist.  
 19 Q Okay. What was the purpose of this meeting in  
 20 Tulsa in October of 2006; do you know? 10: 36AM  
 21 A I didn't set the meeting. I didn't set the  
 22 purpose, so I can't tell you the purpose of the  
 23 meeting.  
 24 Q Did you attend the meeting?  
 25 A I did. 10: 36AM  
 0074  
 1 Q What was discussed at the meeting?  
 2 A I attended a portion of the meeting. I wasn't  
 3 there the whole time, and what I discussed when I  
 4 was there was approaches to damages, both general  
 5 and specific options that might be available here I 10: 37AM  
 6 think. I think that's what I did.  
 7 Q Okay. How many people approximately attended  
 8 this meeting in October of 2006?  
 9 A If it's the meeting I'm thinking about, people  
 10 were coming and going all the time, so it's hard for 10: 37AM  
 11 me to tell how many people were there, but ten,  
 12 twelve maybe, something like that.  
 13 Q Well, there's one, two -- eighteen on this  
 14 E-mail from David Page. Did all those people attend  
 15 the meeting; do you know? 10: 38AM  
 16 A I can't tell you if all the people attended or  
 17 not.  
 18 Q Okay. Mr. Bishop, I've handed you what's been  
 19 marked as Deposition Exhibit No. 7, which is an  
 20 E-mail from Ed Morey, Dr. Morey to you and Dr. 10: 38AM  
 21 Bishop dated October 13th, 2006 with a few quick  
 22 comments on the telephone survey. Do you see that?  
 23 A Yes.  
 24 Q What was Mr. Morey's role in connection with  
 25 the telephone survey? 10: 38AM  
 0075  
 1 A As I said before, he might have been one of  
 2 the people -- he was one of the people that I looked

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3 at and reviewed the survey.  
 4 Q Is this indicative of how the survey questions  
 5 were formulated; was there input from a number of 10: 39AM  
 6 different individuals as to how the survey questions  
 7 should read in connection with the telephone survey?  
 8 A It's not unusual to have a number of reviewers  
 9 look at the questions.  
 10 Q And what's the purpose behind having a number 10: 39AM  
 11 of reviewers look at the questions?  
 12 A To help make sure we're asking the questions  
 13 we think we're asking, to make sure we're being --  
 14 we're covering the topics we want to cover, and  
 15 another set of eyes on things is always helpful. 10: 39AM  
 16 Q Just generally in terms of how these surveys  
 17 are created, is there literature or guidance that  
 18 guides you in terms of the types of questions you  
 19 should ask or how to formulate these kinds of  
 20 surveys? 10: 40AM  
 21 A Can you be more specific when you say these  
 22 kinds of surveys?  
 23 Q Well, I'm talking specifically about the  
 24 telephone survey that you conducted in the fall of  
 25 2006, and it appears from this E-mail that a number 10: 40AM  
 0076  
 1 of people commented on the language that went into  
 2 that telephone survey, and what I'm trying to  
 3 understand is whether there's any guidance in the  
 4 literature about the -- about how one goes about  
 5 creating these kinds of surveys. 10: 40AM  
 6 A There's -- specifically for a telephone survey  
 7 like this, there is a fair amount of stuff written  
 8 about the surveys as they're conducted. We luckily  
 9 had on our team two of the world's best experts in  
 10 survey design, and they were responsible for helping 10: 41AM  
 11 think about and understanding what we were doing.  
 12 So to the degree there's literature, we were relying  
 13 on them to bring that in.  
 14 Q Okay. I think we need to take a break for a  
 15 tape change. 10: 41AM  
 16 VIDEOGRAPHER: We are off the Record. The  
 17 time is 10:41 a.m.  
 18 (Following a short recess at 10:41  
 19 a.m., proceedings continued on the Record at 10:48  
 20 a.m.) 10: 48AM  
 21 VIDEOGRAPHER: We are back on the Record.  
 22 The time is 10:48 a.m.  
 23 Q Mr. Chapman, before we took a break, we were  
 24 talking about the telephone survey, and you  
 25 mentioned that you relied upon two of the best 10: 49AM  
 0077  
 1 experts in the country on survey design. Who are  
 2 you referring to?  
 3 A In the world.  
 4 Q In the world, okay.  
 5 A Dr. Tourangeau and Dr. Krosnick. 10: 49AM  
 6 Q And since in your estimation Dr. Tourangeau  
 7 and Dr. Krosnick are two of the best experts in the  
 8 world, I take it you relied upon them for the survey  
 9 design; is that correct?  
 10 A Could you be more specific about the survey 10: 49AM  
 11 design?  
 12 Q Well, we talked a little bit earlier about  
 13 whether there was any literature in how one drafts

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14 the kinds of questions that are used in a survey and  
 15 how one puts together the survey, and in response to 10: 49AM  
 16 those questions, you said you weren't sure if there  
 17 was literature, but you had two of the world's  
 18 experts on your team, Dr. Tourangeau and Dr.  
 19 Krosnick. So my question is, I take it you relied  
 20 upon Dr. Tourangeau and Dr. Krosnick in putting 10: 50AM  
 21 together the survey; is that correct?  
 22 A No, it's not. I didn't say I didn't know if  
 23 there was literature.  
 24 Q Okay. Did you rely upon Dr. Tourangeau and  
 25 Dr. Krosnick to put together the survey? 10: 50AM  
 0078  
 1 A They had input in the survey, yes.  
 2 Q Okay.  
 3 A I know Dr. Tourangeau did. I'm pretty sure  
 4 Dr. Krosnick did, too.  
 5 Q And I think you're now telling me that there 10: 50AM  
 6 is literature about how one designs these survey  
 7 questions?  
 8 A Absolutely. Both of them have written  
 9 extensively on the issue.  
 10 Q Okay. I thought maybe I misunderstood your 10: 50AM  
 11 answer earlier. I thought you said there was a lot  
 12 of literature about how surveys are conducted and  
 13 the methodology used to take a survey, but there  
 14 wasn't a lot of literature about how survey  
 15 questions are designed. Did I hear you wrong? 10: 51AM  
 16 A You did. That's not what I said.  
 17 Q Okay. So you are familiar with literature  
 18 about how survey questions are designed?  
 19 A Yes.  
 20 Q Are Dr. Tourangeau and Dr. Krosnick also 10: 51AM  
 21 considered experts in how surveys are conducted?  
 22 A Yes, I would think so. I mean, I don't know  
 23 how you define the term expert. I consider them to  
 24 be experts in that.  
 25 Q I'm asking for your consideration, so that's 10: 51AM  
 0079  
 1 fine. When you say that a lot of people had input  
 2 into the survey questions, who had input into the  
 3 survey questions?  
 4 A Again, as I told you before, I think you're  
 5 talking specifically about this telephone survey. 10: 51AM  
 6 It was members of the team, myself, clearly Dr.  
 7 Morey, Dr. Tourangeau, I believe Dr. Krosnick,  
 8 probably Dr. Bishop and Dr. Hanemann also.  
 9 Q Did the attorneys have input into the drafting  
 10 of the telephone survey, the drafting of the 10: 52AM  
 11 questions for the telephone survey?  
 12 A I probably would imagine that we sent a copy  
 13 of it to them for them to review.  
 14 Q Did you change any questions in the telephone  
 15 survey based upon input from the attorneys? 10: 52AM  
 16 A We might very well have. I couldn't tell you  
 17 specifically what without looking at additional  
 18 information, but we might have.  
 19 Q And why would you change questions based upon  
 20 the input from the attorneys? 10: 52AM  
 21 A There's various reasons, not the least of  
 22 which is that some of them have much better grammar  
 23 than I do.  
 24 Q Any other reasons?

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25 A There may be. I can't think of right now 10: 53AM  
0080

1 other specific examples, but I'm sure there's other  
2 reasons. It's not uncommon to have clients look at  
3 documents like this to make sure we're not doing  
4 something wrong, so --

5 Q You'd agree with me that the attorneys aren't 10: 53AM  
6 experts in survey design or drafting questions for  
7 surveys like this telephone survey; correct?

8 A I don't know whether they are or aren't.

9 Q You didn't rely upon the attorneys in this 10: 53AM  
10 case as experts in survey design, did you?

11 A No.

12 Q You didn't look to the attorneys to be experts  
13 in survey design, did you?

14 A No.

15 Q What were the goals of the recreation 10: 53AM  
16 telephone survey, and if you need to look at Exhibit  
17 4, go ahead.

18 A We did not conduct a recreation telephone  
19 survey.

20 Q What were the goals of the telephone survey? 10: 54AM

21 A I'd have to go back and look.

22 MS. XIDIS: 4 you said?

23 MR. DEIHL: 4.

24 A The three main goals of the telephone surveys,  
25 as reported here, are evaluate respondents' 10: 54AM

0081  
1 knowledge and use of Oklahoma water bodies,  
2 determining respondents' awareness of and perception  
3 about the sources of water quality problems in  
4 Oklahoma and identifying key messages respondents  
5 remembered from media stories, ads, news, stories, 10: 54AM  
6 editorials about the poultry industry.

7 Q And you'd agree with me that those were the  
8 three main goals of the telephone survey?

9 A As we recorded them here, yeah.

10 Q You keep saying as we reported them here. 10: 55AM  
11 Were there other goals in addition to these?

12 A No. I mean, these are what we wrote here.

13 This is what we had as our main goals.

14 Q What steps did you follow in developing the  
15 telephone survey? 10: 55AM

16 A Generally we identified the goals of the  
17 survey. We identified the population to survey. We  
18 identified questions to ask people. Those were the  
19 three main steps in implementing the survey.

20 Q How did you identify the questions to ask  
21 people? 10: 55AM

22 A From the goals that we identified.

23 Q And who was responsible for drafting those  
24 questions?

25 A As I just said, the whole team had input into 10: 56AM

0082  
1 those questions.

2 Q Who actually was drafting the questions?

3 A I took an initial cut at them, and then I know  
4 Dr. Tourangeau added some edits to them, as did Dr.  
5 Morey. I don't know if we did other ones on the 10: 56AM  
6 telephone with other people, so it evolved over a  
7 number of iterations.

8 Q How was the sample developed?

9 A We identified a basic sampling plan of random

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10 digit dial format of Oklahoma residents. 10: 57AM  
 11 Q So that included all Oklahoma residents?  
 12 A I'd have to go back and look explicitly.  
 13 There were two things -- one thing for sure I know  
 14 we screened against but I don't know if we limited  
 15 it to a certain region or not. I'd have to go back 10: 57AM  
 16 and look.  
 17 Q What was the thing you know you screened  
 18 against?  
 19 A A list of participants in the legal case.  
 20 Q When you say a list of participants in the 10: 57AM  
 21 legal case, you mean the defendants in the legal  
 22 case?  
 23 A I don't know specifically who they are, but we  
 24 were asked to make sure we didn't contact certain  
 25 people. 10: 58AM  
 0083  
 1 Q Okay. You were asked to make sure you didn't  
 2 contact any poultry growers in Oklahoma; correct?  
 3 A I -- that may be how they were termed. We  
 4 were actually given a list and we used that list to  
 5 screen against. 10: 58AM  
 6 Q And is it proper methodology to exclude  
 7 poultry growers in Oklahoma from a survey like this?  
 8 A In some cases, yes.  
 9 Q Why would it be proper methodology?  
 10 A Because we weren't supposed to be contacting 10: 58AM  
 11 them.  
 12 Q Why?  
 13 A I don't know why.  
 14 Q Do you know how many growers were on that  
 15 list? 10: 58AM  
 16 A No. I'd have to go back and look at the list.  
 17 I don't even know if I could tell you from the list  
 18 whether people were growers or what else. I could  
 19 just tell you the number of entries on the list.  
 20 Q And who gave you the direction not to include 10: 59AM  
 21 phone numbers for poultry growers in Oklahoma?  
 22 A I'd have to look at it. I'm sure it's  
 23 probably on the E-mail you're about to hand me,  
 24 so --  
 25 Q We'll refresh your recollection. Mr. Chapman, 10: 59AM  
 0084  
 1 I've handed you an E-mail dated October 20th, 2006,  
 2 from Fred Baker to yourself with copies to others  
 3 regarding a spreadsheet containing the phone numbers  
 4 of poultry growers in Oklahoma. Do you see that?  
 5 A That's what it says here. 10: 59AM  
 6 Q Who's Fred Baker?  
 7 A I think he is one of the attorneys on the  
 8 case.  
 9 Q So one of the attorneys on the case was  
 10 instructing you not to include poultry growers in 10: 59AM  
 11 Oklahoma on your telephone survey; is that correct?  
 12 A They want us to exclude whatever those phone  
 13 numbers were. He says they're poultry growers. I  
 14 don't know if they're just poultry growers or not,  
 15 but we excluded those phone numbers. 11: 00AM  
 16 Q Did you have any discussion about whether  
 17 excluding those phone numbers would skew the results  
 18 of your telephone survey?  
 19 A I think we probably did say something about  
 20 the fact. We said probably two things. Low odds 11: 00AM



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21 we'd get one of these phone numbers in the first  
22 place from the random digit dial, and if we did,  
23 excluding an individual, given the general goals and  
24 scoping effort of that study, would probably not  
25 have a significant effect. 11: 00AM

0085

1 Q So statistically you're saying you don't think  
2 it would have a significant effect?

3 A Not for what we were trying to do with that  
4 study.

5 Q Okay. 11: 00AM

6 A Importantly probabilistically it would give a  
7 low chance of actually hitting one of these  
8 telephone numbers.

9 Q What survey administration protocols did you  
10 use in connection with the telephone survey? 11: 01AM

11 A The telephone survey was conducted by Consumer  
12 Logic for us. So they used their standard survey  
13 telephone protocols. We asked for them to give us,  
14 I believe, it was a random digit dial collection of  
15 information approach, and they used their survey  
16 protocols. 11: 01AM

17 Q If you would take a look again at Exhibit 4,  
18 and particularly directing your attention to Page 6,  
19 it appears that the first set of questions in the  
20 survey were designed to gauge awareness of Tenkiller  
21 Lake and the Illinois River. Would you agree with  
22 that? 11: 01AM

23 A Where are you reading?

24 Q I'm not reading anywhere. I'm just sort of  
25 summarizing my understanding of the document. 11: 02AM

0086

1 A Could you repeat the question? Sorry.

2 Q The question was, it appears that the first  
3 set of questions in the telephone survey were  
4 designed to gauge the awareness of Tenkiller Lake  
5 and the Illinois River. 11: 02AM

6 A I don't know if these are the first set of  
7 questions on the survey. As we're reporting it  
8 here, the first thing we're talking about is the use  
9 of rivers and lakes in Oklahoma. That's the first  
10 thing we're really talking about. 11: 02AM

11 Q Okay. Fair enough. Were the majority of  
12 respondents aware of Tenkiller Lake and the Illinois  
13 River?

14 A It's going to require me to do some math here.

15 Q If you look at the bottom of Page 7 -- 11: 03AM

16 A Anything specific?

17 Q Well, I'm just looking at the heading labeled  
18 General Awareness of the Illinois River and  
19 Tenkiller Lake, but Stratus is the one who wrote  
20 this report, so I'm asking for your interpretation  
21 of whether the respondents were aware of Tenkiller  
22 Lake and the Illinois River. 11: 03AM

23 A That's why I said I would have to take some  
24 math because it says 85 percent of respondents,  
25 conditional on the statement, who did not mention  
11: 04AM

0087

1 the river in any previous question. So I'd have to  
2 know what that was to tell you whether or not the  
3 majority of people did or didn't. From reading this  
4 sentence, I can't tell you that. I'm sorry.

5 Q Okay. From looking at this report, can you 11: 04AM



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6 tell me that?  
7 A I'd have to look at the report closely. Let  
8 me see. So the question is --  
9 Q Were the majority of respondents aware of  
10 Tenkiller Lake and the Illinois River? 11: 04AM  
11 A Okay. Let me think. And/or Illinois River,  
12 Tenkiller Lake and Illinois River, or Tenkiller Lake  
13 or Illinois River.  
14 Q Well, let's answer all three of them.  
15 A Let's see. I hate doing math like this, but 11: 05AM  
16 we'll see if I can do it.  
17 Q Mr. Chapman, if you need a calculator, I have  
18 one on my phone.  
19 A Luckily the majority is a simple threshold. I  
20 can answer -- I think I can answer the question. I 11: 09AM  
21 guess it was here. My math worked. Look at that.  
22 Okay. It looks like 25 percent had visited the  
23 Illinois River and 32 percent had visited Tenkiller  
24 Lake. I don't know the ones that had visited both.  
25 Q On what page are you referring to? 11: 09AM  
0088  
1 A Page 7.  
2 Q So you said 25 percent had visited the  
3 Illinois River?  
4 A Yeah, that's what we have here, 25 percent  
5 have visited the Illinois River and 32 percent have 11: 09AM  
6 visited Tenkiller Lake.  
7 Q So the answer to my question, were the  
8 majority of the respondents aware of these areas,  
9 the answer to that is no?  
10 A No. This is visited. 11: 10AM  
11 Q Okay. Do you know if the majority of the  
12 respondents were aware of the area, and again I  
13 think it's on the bottom of Page 7 but I may be  
14 wrong.  
15 A Let me check. 11: 10AM  
16 Q Do you see at the bottom of Page 7 in the  
17 Stratus report it says General Awareness of the  
18 Illinois River and Tenkiller Lake?  
19 A Yes.  
20 Q And that sentence reads 85 percent of 11: 11AM  
21 respondents who did not mention the river in any  
22 previous questions said they have heard of the  
23 Illinois River, and 83 percent of respondent who did  
24 not mention the lake in any previous question said  
25 they have heard of Tenkiller Lake; do you see that? 11: 11AM  
0089  
1 A Yes, yeah, and that's the problem of trying to  
2 figure out whether people said they heard it because  
3 I don't know from this if I actually know the number  
4 of people who did not mention the river in the  
5 previous question to calculate out those percentages 11: 11AM  
6 accurately.  
7 Q But if they had mentioned the river in any  
8 previous questions, they would have heard of the  
9 river; correct?  
10 A They could have mentioned it in a list. I 11: 11AM  
11 don't know whether they were aware of it or  
12 anything. They could have mentioned it in the list.  
13 That's what's hard to pull out from this. Sorry.  
14 Q Okay. At least the sentence in the report  
15 that Stratus drafted on general awareness of the 11: 12AM  
16 Illinois River and Tenkiller Lake were the numbers I

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EXHIBIT Q

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17 just read you; correct?

18 A Yes, those were the numbers that are in here.

19 Q You also asked questions to determine whether  
20 respondents knew of any water quality problems in 11: 12AM

21 Oklahoma and what they perceived to be the causes of

22 those issues, and you specifically did not mention

23 water quality in these questions so that respondents

24 would be given a chance to provide these answers

25 without being prompted; is that correct? 11: 12AM

0090

1 A I don't know if we specifically did it about

2 not being prompted. I guess we said that here in

3 the footnote, so, yes.

4 Q So that is correct?

5 A As we state here, yes. 11: 13AM

6 Q And that's in Footnote 6 on Page 8?

7 A Yes.

8 Q Why did you believe that it was important to  
9 find out the respondents' opinions about the quality  
10 of the resource without prompting? 11: 13AM

11 A There's a number of ways to ask these  
12 questions, and sometimes you ask them with  
13 prompting; sometimes you ask them without prompting.  
14 Sometimes people are very quick to give you a  
15 response, and when you prompt them to think more  
16 closely about questions, they give you a more  
17 thoughtful and detailed answer. 11: 13AM

18 Q In this particular survey in Footnote 6, you  
19 indicate that they were asked questions about water  
20 quality without being prompted. Why did you choose  
21 not to prompt people about water quality in this  
22 telephone survey? 11: 13AM

23 A We did prompt people about water quality in  
24 the survey.

25 Q Why did you choose not to prompt people about 11: 14AM

0091

1 problems with water quality in this survey?

2 A I think we did prompt people.

3 Q Maybe I'm reading Footnote 6 wrong, but it  
4 says respondents were asked questions about their  
5 impressions to determine if they would mention any  
6 water quality problems without being prompted. 11: 14AM

7 A I think that was the first level of the  
8 questions.

9 Q Okay.

10 A Later down the line we actually did ask people  
11 to think more closely about the questions. 11: 14AM

12 Q I understand. So let's talk about this first  
13 level of questions. Why did you choose to ask that  
14 question without prompting in this first level of  
15 questions? 11: 14AM

16 A As I sit here right now, I can't specifically  
17 tell you why we chose to do it in this order.

18 Q Who was responsible for making that decision  
19 in this survey?

20 A I was involved with it as was the other  
21 members I told you about. So we were all involved  
22 in that. Specifically why we chose to do this first  
23 without prompting, I can't tell you all the things  
24 we were thinking about then right now. 11: 14AM

25 Q What are the reasons that you would not prompt 11: 15AM

0092

1 a recipient?

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2 A As I said, just to get a first initial  
3 impression.  
4 Q And what can happen when you do prompt a  
5 respondent? 11: 15AM  
6 A People can think more closely and carefully  
7 about the question.  
8 Q Can you also suggest an answer when you prompt  
9 someone?  
10 A Can you suggest an answer? You can certainly 11: 15AM  
11 tell them options for answers, yes. I mean, this is  
12 a question about what they know and what they don't  
13 know.  
14 Q Well, this is a question about their  
15 impression of the Illinois River and Tenkiller Lake; 11: 15AM  
16 right?  
17 A That's what that first question was, yes.  
18 Q What were the results of your question about  
19 impressions of the Illinois River and Tenkiller Lake  
20 as reflected in Table 3? 11: 16AM  
21 A Well, they're presented here in Table 3. Do  
22 you want me to read the table?  
23 Q No, I don't want you to read the whole table.  
24 What were the percent who stated impressions of the  
25 Illinois River were good for water-based recreation? 11: 16AM  
0093  
1 A 29 percent of the people surveyed.  
2 Q And what percent of the people surveyed said  
3 it was a beautiful, fun place to visit?  
4 A 19 percent.  
5 Q And what percent of the people said it was 11: 16AM  
6 good for water-based recreation in Tenkiller Lake?  
7 A 16 percent.  
8 Q And which percent of people said it was a  
9 beautiful, fun place to visit in Tenkiller Lake?  
10 A Again, 24 percent said that was their 11: 17AM  
11 impression.  
12 Q And what percent stated their impression of  
13 Tenkiller Lake included chicken waste in the water?  
14 A We have it here as zero percent. Nobody  
15 mentioned that in that first cut. 11: 17AM  
16 Q Okay, and in the Illinois River what percent?  
17 A 6 percent said that was their impression.  
18 Q Based on these results as reflected in this  
19 table, did it appear the users of these resources  
20 had lost significant benefits as a result of an 11: 18AM  
21 injury?  
22 A You can't tell that from this table.  
23 Q Why not?  
24 A Because this is their current impression about  
25 the current situation. It doesn't ask them the 11: 18AM  
0094  
1 question about what they've lost.  
2 Q Well, if the respondents have a positive  
3 impression of the resources reflected in this table  
4 and are not aware of an injury, have they incurred a  
5 loss from an injury? 11: 18AM  
6 A I didn't say anything about their awareness of  
7 an injury.  
8 Q Okay. Well, as reflected in this table, is  
9 there an awareness of an injury reflected in the  
10 answer to these survey questions? 11: 18AM  
11 MS. XIDIS: Objection to form.  
12 A I actually don't understand the question.

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13 Q Well, you asked people for their impressions  
14 of the Illinois River and Tenkiller Lake. If they  
15 thought there had been an injury to the Illinois  
16 River and Tenkiller Lake, wouldn't you expect the  
17 respondents to reflect that in their answer to your  
18 survey? It's polluted, it smells bad? 11: 19AM

19 MS. XIDIS: Objection to form.

20 A I wouldn't have that expectation, no. 11: 19AM

21 Q Why not?

22 A Because that's not what we asked them.

23 Q You asked them for their impression of the  
24 Illinois River and Tenkiller Lake; right?

25 A Yes. 11: 19AM

0095

1 Q Okay, and their impression of the Illinois  
2 River and Tenkiller Lake, 29 said their impression  
3 of the Illinois River was it was good for recreation  
4 and 19 said it was a beautiful, fun place to visit,  
5 5 percent said it had clean clear water. 11: 19AM

6 A Right.

7 Q In the case of Tenkiller Lake, none of them  
8 mentioned chicken waste in the water; right?

9 A I think we could actually say that. We could  
10 actually say that none of them mentioned chicken  
11 waste. 11: 20AM

12 Q So I repeat my question. If -- let's set  
13 aside this table. If respondents have a positive  
14 impression of a resource and are not aware of an  
15 injury, can they have incurred a loss from the  
16 injury? 11: 20AM

17 A So this is a hypothetical question?

18 Q Yes.

19 A Yes.

20 Q How? Explain your answer to me. 11: 20AM

21 A Knowing the specifics of an injury does not  
22 drive the damages.

23 Q So if you just don't know you're injured, you  
24 can still have damages; is that essentially what  
25 you're saying? 11: 21AM

0096

1 A I believe that's true.

2 Q In the next part of the survey, you prompted  
3 respondents about their knowledge of possible  
4 contamination from chicken farms. In that case, did  
5 more respondents mention chicken waste? 11: 21AM

6 A I need to find out where you're talking about.  
7 I think without the survey and the ordering on the  
8 survey questioning, I can't really answer the next  
9 questions and the prompting stuff without seeing  
10 that specifically. 11: 22AM

11 Q Without looking at the survey specifically,  
12 okay. We'll get the survey for you.

13 A Okay.

14 Q If -- let's go back to my earlier hypothetical  
15 where you said that someone could have a loss from  
16 an injury even if they're not aware of an injury.  
17 Do you remember that? 11: 22AM

18 A Yes.

19 Q If you tell a respondent about an injury, are  
20 you creating a loss for that respondent? 11: 23AM

21 MS. XIDIS: Objection to form.

22 A I don't follow the question.

23 Q If I am unaware that there is a problem with a

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24 resource, I'm using the resource, I enjoy using the  
25 resource, and you come along and tell me that 11: 23AM

0097

1 there's a problem with the resource, have you  
2 created a loss for me?

3 MS. XIDIS: Objection to form.

4 A I can't tell you what you think or feel.

5 Q I'm not asking you about me personally. I'm 11: 23AM  
6 asking a hypothetical question based on your  
7 understanding of survey design, economics and the  
8 work that you do, whether you can effect a loss, you  
9 can create a loss for a respondent by telling them  
10 about an injury that they don't know about. 11: 24AM

11 A I don't believe you can.

12 MS. XIDIS: Objection.

13 Q Why did you not include the results of this  
14 telephone survey in your CV report?

15 A Again, this was just preliminary background 11: 24AM  
16 investigations, making sure we did due diligence in  
17 understanding what was going on. For me personally,  
18 I wanted to pull some information out of this that I  
19 got from this, and that's all I needed to know.

20 Q What information did you want to pull out of 11: 24AM  
21 this?

22 A One of the things that's important -- that was  
23 important for me was understanding people's  
24 knowledge from the media campaigns that had been  
25 going on. 11: 24AM

0098

1 Q Anything else?

2 A For me personally, that was the main interest.

3 Q And what did you conclude about people's  
4 understanding from the media campaigns that had been  
5 going on? 11: 25AM

6 A Well, that it was a pretty significant  
7 proportion of the people that had heard ads about  
8 the poultry industry and the issues that were going  
9 on, that television was a significant pathway of  
10 that information to them, that a number of people 11: 25AM  
11 had read editorials and news reports about that, and  
12 that personally for me that was a pretty large  
13 number of people who were remembering these media  
14 campaigns.

15 Q And why was that important to you? 11: 26AM

16 A Because it's important to understand what  
17 perceptions and understandings people have about the  
18 resource. Just, again, this is part and parcel  
19 similar to the information we collected about the --  
20 in the recreation study, just understanding this 11: 26AM  
21 information is important when you're trying to  
22 identify approaches and methods to collect  
23 information for a natural resource damage  
24 assessment.

25 Q What impact did your understanding of people's 11: 26AM

0099

1 knowledge about these media campaigns have on your  
2 development of the CV survey?

3 A It let us know that we would not be able to  
4 design a survey that completely separated the issues  
5 in the river and lake from the poultry industry. 11: 27AM

6 Q Why is that?

7 A Because people knew that was the case.

8 Q Knew what was the case?

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9 A That the conditions in the river and lake were  
10 affected by the poultry industry, and that lots of 11: 27AM  
11 actions were going on, and that there were lots of  
12 media information about this issue.  
13 Q You've spoken a number of times about media  
14 information. Describe to me this media information.  
15 A There were newspaper ads; there were 11: 27AM  
16 television ads. I believe there were radio ads.  
17 There were Internet ads.  
18 Q Okay. Who produced these ads?  
19 A I do not know.  
20 Q Okay. Going back to Page 1 of Exhibit 4, your 11: 27AM  
21 second goal of the telephone survey was to determine  
22 respondents' awareness of and perceptions about the  
23 sources of water quality problems in Oklahoma. Did  
24 you accomplish that goal?  
25 A I think we gathered a better -- you know, an 11: 28AM  
0100  
1 additional understanding of it, yes, through this.  
2 Q And what was the upshot of that additional  
3 understanding?  
4 A I'd have to go back and look at the details  
5 here. 11: 28AM  
6 Q Okay. So this report doesn't tell you?  
7 A It might very well.  
8 Q Okay.  
9 A I just need to go back and look at this. This  
10 is a couple of years ago that we did this. So I 11: 29AM  
11 guess looking at Tables 4, 5, 6, 7, lead me to  
12 believe that people had heard about or think the  
13 issues or have concerns with the Illinois River and  
14 Tenkiller Lake are fairly significant.  
15 Q Okay, and that's what you draw your conclusion 11: 31AM  
16 from?  
17 A From this, from -- out of this report, that's  
18 what I'm saying that's representing.  
19 Q Okay, and then your last goal of this survey  
20 was identifying key messages respondents remembered 11: 31AM  
21 from media stories about the poultry industry.  
22 A Yes.  
23 Q What were those key messages?  
24 A Half the folks had heard or seen ads about the 11: 32AM  
25 poultry industry. As I said before, the method of  
0101  
1 delivery was predominantly television. People  
2 remembered specific components of the ads. A fairly  
3 small number of people actually knew anything about  
4 the current lawsuit.  
5 Q If you look at Table 9 on Page 12, does that 11: 32AM  
6 reflect respondents' descriptions of the content of  
7 media stories about the poultry industry?  
8 A Again, these are categories that their answers  
9 were put into.  
10 Q Did you review these ads and editorials? 11: 32AM  
11 A I looked at a number of them.  
12 Q Okay. Give me a sense for what they said.  
13 A Some of them were just -- well, the ads were  
14 by the -- the Poultry Council or something like  
15 that. I looked at those on the Internet, but 11: 33AM  
16 apparently they were the same as done on television.  
17 I actually saw some of the television ads when I was  
18 here visiting one time, and those all sort of were  
19 along the lines of nice, pleasant background, folks

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20 talking, talking about the fact that they're out 11: 33AM  
 21 there doing what they can. The editorials were more  
 22 just descriptive about what was going on, the status  
 23 of different discussions. Those are some of the  
 24 basic things I can remember.

25 Q Anything else you can remember? 11: 34AM

0102

1 A Not right now but I'm --

2 Q Let me go back to the hypothetical that I gave  
 3 you a few minutes ago. I'm having trouble  
 4 understanding how you can have a loss from an injury  
 5 that you don't know about. You said you thought you 11: 34AM  
 6 could have a loss from an injury that you don't know  
 7 about. Correct?

8 A I believe -- I believe there are damages  
 9 associated with injuries that a specific individual  
 10 may or may not know about. 11: 34AM

11 Q What's the mechanism that causes a specific  
 12 individual to experience a loss in well being?

13 A A mechanism?

14 Q Uh-huh.

15 A You mean what's happening in people? 11: 34AM

16 Q Yeah.

17 A I have no idea what is happening chemically or  
 18 biologically in people that makes that happen to  
 19 them, I mean, if that's what you're asking.

20 Q I'm not talking chemically or biologically. 11: 35AM  
 21 I'm talking from an economist's perspective, what  
 22 happens in a person that causes him to experience a  
 23 loss in well being?

24 A Again, I don't know what happens in a person.

25 Q Okay. Based on economic theory, what's the 11: 35AM

0103

1 theory that causes people to experience a loss in  
 2 well being?

3 MS. XIDIS: Objection to form.

4 A I don't understand the causes loss part.

5 Q Okay. Doesn't economics assume that a given 11: 35AM  
 6 person has full information about their -- about the  
 7 marketplace, about a situation?

8 MS. XIDIS: Objection to form.

9 A No, not necessarily at all.

10 Q Okay. Does people's utility function include 11: 36AM  
 11 things they don't know about?

12 MS. XIDIS: Objection to form.

13 A I don't know what is in people's utility  
 14 functions.

15 Q Do you know what utility function is? 11: 36AM

16 A I know the concept of utility function as used  
 17 by economists.

18 Q What's the concept of utility function as used  
 19 by economists?

20 A Things that individuals consider or think 11: 36AM  
 21 about that bring them -- that help them set their  
 22 state of well being.

23 Q Can a person's utility function include  
 24 something the person doesn't know about?

25 MS. XIDIS: Objection to form. 11: 37AM

0104

1 A I actually don't understand what you're --

2 Q Well, you just told me utility function is  
 3 something an individual thinks about that helps them  
 4 set their state of well being; right? That was the

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5 definition you just gave me of a utility function. 11: 37AM  
6 A Yeah. Something that helps them set that  
7 state of wellbeing.  
8 Q Okay. I think you said things that  
9 individuals think about that help them set their  
10 state of wellbeing. Did I get that right? 11: 37AM  
11 A Yes.  
12 Q Okay. Can that utility function include  
13 something that they don't know about?  
14 A Hypothetically?  
15 Q Yes. 11: 37AM  
16 A Hypothetically I don't know. I think it  
17 probably can't, but I'm not sure.  
18 Q Probably cannot?  
19 A Cannot.  
20 Q Again, just speaking hypothetically, what's 11: 38AM  
21 the mechanism that causes a person to experience a  
22 loss in their wellbeing and, again, I'm talking  
23 about economic theory here.  
24 A It's a different --  
25 MS. XIDIS: Objection to form. 11: 38AM  
0105  
1 Q Go ahead. You can answer the question.  
2 A It's a difference -- in economics we use a  
3 difference in people's utility as a measure of loss.  
4 Q Okay. Explain to me what you mean by that.  
5 A Under conditions when two different states of 11: 39AM  
6 the environment can provide an individual two  
7 different states of utility, and the difference  
8 between those can be either a loss or a gain  
9 depending on how people interpret it and whether  
10 it's an increase or decrease in the states of the 11: 39AM  
11 environment to them.  
12 Q And different people have different utilities,  
13 correct, different utility functions? I may value  
14 NASCAR racing above all else and be willing to pay a  
15 lot of money for it. You may never want to go to a 11: 39AM  
16 NASCAR race and not be willing to pay anything for  
17 it?  
18 A That's highly possible.  
19 MS. XIDIS: Objection to form.  
20 Q Okay, and the same is true of any utility 11: 39AM  
21 function; right?  
22 A Again, a utility function is an economic  
23 concept.  
24 Q That's what we're talking about here.  
25 A I don't believe you have a utility function 11: 40AM  
0106  
1 and I don't believe I have a utility function like  
2 something in my pocket. It's a -- it's a concept  
3 that we use in economics to help describe how  
4 economists think about individuals.  
5 Q Okay. 11: 40AM  
6 A Can I get some more water here?  
7 Q Sure. Again, talking about the concept that  
8 economists use, this utility function concept, how  
9 can a given person's utility function change if they  
10 don't know about something? 11: 41AM  
11 MS. XIDIS: Objection to form.  
12 A They can learn about it.  
13 Q Who is Ronald French?  
14 A I don't know specifically. He might be one of  
15 the natural scientists or physical scientists. I 11: 41AM

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16 actually don't know specifically who he is.  
 17 Q Okay. The photographs that you attached to  
 18 your CV study to the survey that was given to  
 19 participants, were those photographs taken of the  
 20 Illinois River and Tenkiller Lake? 11: 42AM  
 21 A In the final survey?  
 22 Q Yes.  
 23 A I'd have to go back and check. I believe some  
 24 of them -- at least some of them were.  
 25 Q Okay. So some of them were not? 11: 42AM  
 0107  
 1 A I do not know that.  
 2 Q Would it matter whether the photographs were  
 3 of Illinois River or Tenkiller Lake in terms of  
 4 survey design?  
 5 A I don't think so. The survey -- the pictures 11: 42AM  
 6 were trying to present one component of the  
 7 information we're representing to them.  
 8 Q Okay. So as long as you have a picture that  
 9 conveys the impression you're trying to convey, it  
 10 doesn't matter whether it's of the actual lake or 11: 42AM  
 11 not?  
 12 A Very often illustrations are used. So whether  
 13 it's the specific one or not, you'd like to know  
 14 that, but I don't -- I don't think right now, as I  
 15 sit here, it matters whether it's that specific lake 11: 43AM  
 16 or a nearby lake as long as it's adequately  
 17 presenting the information you're trying to present.  
 18 Q Okay. Mr. Chapman, I've handed you what's  
 19 been marked as Deposition Exhibit No. 9, which is a  
 20 series of E-mails. The top one is an E-mail from 11: 43AM  
 21 David Page to yourself and a couple of others dated  
 22 January 11th, 2007 at 5:39 a.m. Do you have that in  
 23 front of you?  
 24 A I'm on the CC of this.  
 25 Q Right. 11: 44AM  
 0108  
 1 A I don't recognize it but I'm on the CC of it.  
 2 Q Okay, and I think we need a tape change, so  
 3 I'm going to stop for the tape change before I go  
 4 into these questions.  
 5 VIDEOGRAPHER: We are off the Record. The 11: 44AM  
 6 time is 11:44 a.m.  
 7 (Whereupon, a discussion was held off  
 8 the Record.)  
 9 VIDEOGRAPHER: We are back on the Record.  
 10 The time is 11:45 a.m. 11: 46AM  
 11 Q Mr. Chapman, before we took a break for a tape  
 12 change, I handed you Deposition Exhibit No. 9, and  
 13 I'd like to direct your attention to the bottom of  
 14 the first page of that deposition exhibit, which  
 15 contains an E-mail from David Allen to Roger Olsen. 11: 46AM  
 16 Do you see that?  
 17 A Yes.  
 18 Q And, again, David Allen is a vice president at  
 19 Stratus?  
 20 A Yes, he is. 11: 46AM  
 21 Q Is he your boss?  
 22 A He's not my boss or supervisor, no.  
 23 Q Okay, and how about, who is Roger Olsen?  
 24 A Again, I think he's one of the natural  
 25 scientists in the case. 11: 46AM  
 0109

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1 Q Okay, and who is David Page?  
2 A Again, as I said before, he's one of the  
3 attorneys in the case.  
4 Q And in this E-mail from David Allen, a vice  
5 president at Stratus, he's talking about when he's 11: 47AM  
6 available for phone call and on the next page, he  
7 goes on -- let me just read the first sentence. For  
8 clarity, let me make sure that I understand our  
9 topic because there are many separate elements of  
10 our potential claims and some of them might be 11: 47AM  
11 approached from more than one angle. Here's an  
12 general outline of how I tend to position the  
13 various elements of complex cases, which might help  
14 us discuss the particulars of OPL, which is Oklahoma  
15 poultry litigation, OPL? 11: 47AM  
16 A I don't know if it's litigation. I told you  
17 before I think of it as litter.  
18 Q Litter?  
19 A Litter.  
20 Q Oklahoma poultry litter. Bullet No. 4 on this 11: 47AM  
21 page talks about natural resource restoration; do  
22 you see that?  
23 A Yes.  
24 Q And he says, natural resource restoration,  
25 colon, what else must be done additional to 11: 48AM  
0110  
1 injunctive relief and remediation to make the public  
2 whole. He goes on to say, this is where we must  
3 grapple with values because making the public whole  
4 is a value laden exercise, and then he goes on in  
5 that paragraph to talk about restoration of eagle 11: 48AM  
6 habitat, et cetera. Do you see that?  
7 A Yes, I see that.  
8 Q And in the following paragraph he writes, in  
9 those relatively rare circumstances when a site is  
10 so transformed by defendants' releases of 11: 49AM  
11 contaminants, open paren, hazardous substances, that  
12 it cannot be easily fixed or replaced, then it  
13 becomes more and more likely that realistic  
14 restoration will provide a different set of  
15 environmental goods, open paren, ecological benefits 11: 49AM  
16 and/or human benefits, including appreciation for  
17 the ecological benefits, closed paren, than those  
18 lost because of defendant-caused injuries. In these  
19 cases, to determine how much restoration is enough,  
20 one must weigh the injury losses against the 11: 49AM  
21 restoration gains either through ecological mapping  
22 or valuation mapping. Do you see that?  
23 A I do see that.  
24 Q Do you agree with that?  
25 A First of all, I've never seen this before. 11: 49AM  
0111  
1 Q I understand. Actually you have seen this  
2 before because it was appended to an E-mail that you  
3 were copied on dated January 11th, 2007.  
4 A I bet this came into my inbox. I bet that  
5 happened. 11: 50AM  
6 Q Okay. Fair enough. You didn't read it when  
7 it came into your inbox is what you're saying?  
8 A I can tell you I've not seen this before.  
9 Q Okay.  
10 A So you're asking me if I agree with what? 11: 50AM  
11 Q If you agree with the paragraph I just read

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12 you.  
 13 A You read me two paragraphs.  
 14 Q Well, if you agree with the whole thing I read  
 15 you. If there's anything you disagree with in what 11: 50AM  
 16 Mr. Allen is stating in Section 4 of this E-mail.  
 17 A So it's the paragraph numbered 4 and the one  
 18 below it?  
 19 Q Yes.  
 20 A And the conclusions or not? 11: 50AM  
 21 Q I haven't asked you about the conclusions yet.  
 22 A Okay.  
 23 MS. XIDIS: I'm reading through this, and  
 24 there's a lot of different conceptual information  
 25 going on. So I object to the form of your question, 11: 51AM  
 0112  
 1 that it covers so much ground here, and you're  
 2 asking him to agree. If you want to try to break it  
 3 out into concepts or topics, I think that would be  
 4 more appropriate.  
 5 MR. DEIHL: I have broken it into topics or 11: 51AM  
 6 concepts. I'm asking him specifically about  
 7 Paragraph 4, which talks about natural resource  
 8 restoration.  
 9 MS. XIDIS: The two single-spaced  
 10 paragraphs that take up almost half the page? 11: 52AM  
 11 MR. DEIHL: That's what I'm asking him  
 12 about.  
 13 A Can you read back the question?  
 14 (Whereupon, the court reporter read  
 15 back the previous questions and answers at Page  
 16 111, Lines 14-22.)  
 17 A There's some musts in here that I don't  
 18 necessarily agree with.  
 19 Q Okay. Which musts?  
 20 A So there's two musts. Both the musts actually 11: 54AM  
 21 I don't agree with. I think they can be cans but  
 22 they don't have to be musts.  
 23 Q Other than that, if you substitute can for  
 24 must, you'd agree with Mr. Allen writes here?  
 25 A Also the first must, too, what also must be 11: 55AM  
 0113  
 1 do.  
 2 Q Okay.  
 3 A These are -- these are possible approaches to  
 4 I guess what he's calling natural resource  
 5 restoration. 11: 55AM  
 6 Q You'd would agree with the way he's  
 7 characterized it here other than with the  
 8 substitution of those three words?  
 9 A I would -- I think that in general -- I'd have  
 10 to really think about it some more, whether I really 11: 56AM  
 11 agree with everything he says here, but in general,  
 12 as this concept of natural resource restoration, as  
 13 I understand it, I think these are options that are  
 14 available sometimes.  
 15 Q Okay. 11: 56AM  
 16 MR. DEIHL: I think this is a good time for  
 17 a break.  
 18 VIDEOGRAPHER: We are off the Record. The  
 19 time is 11:56 a.m.  
 20 (Following a lunch recess at 11:56 11: 56AM  
 21 p.m., proceedings continued on the Record at 1:06  
 22 p.m.)

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23 VIDEOGRAPHER: We are back on the Record.  
 24 The time is 1:06 p.m.  
 25 MS. XIDIS: Colin, I did have a question 01:07PM  
 0114  
 1 for you. You're kind of a new face at these  
 2 depositions. Do you have a pro hac entered in this  
 3 case?  
 4 MR. DEIHL: I don't believe I do.  
 5 MS. XIDIS: Okay. Well, the State would 01:07PM  
 6 appreciate it if you would get that filed --  
 7 MR. DEIHL: Yeah, I will do that.  
 8 MS. XIDIS: -- within the next 24 hours.  
 9 MR. DEIHL: I was -- yes, I will get that  
 10 done. 01:07PM  
 11 Q We're back on the Record. Mr. Chapman, I've  
 12 handed you what's marked as Deposition Exhibit No.  
 13 10, a copy of Volume I of the Stratus Consulting  
 14 expert report in this case; is that correct?  
 15 A Yes. 01:08PM  
 16 Q Describe for me what your role was generally  
 17 in connection with this report. What did you do?  
 18 A My role was multifaceted. I helped manage the  
 19 overall project. I helped develop the survey. I  
 20 helped coordinate and work with the data collection. 01:08PM  
 21 I helped with the data analysis, the report writing  
 22 and worked among -- communications among the various  
 23 experts and with the client.  
 24 Q Did you write sections of the report?  
 25 A Yes. 01:09PM  
 0115  
 1 Q The report lists I believe seven authors. Can  
 2 you -- let's start with the table of contents. Can  
 3 you identify for me -- strike that. Let me start  
 4 over. Looking at the table of contents, can you  
 5 identify for me which sections of the report you  
 6 wrote? 01:09PM  
 7 A I wrote various sections of the report. We  
 8 actually provided you a mapping of who wrote what  
 9 sections or -- not who wrote but who was primarily  
 10 responsible for what sections. I don't have that  
 11 with me, but I know we did provide that at one  
 12 point. 01:09PM  
 13 Q When you're talking about a mapping, you're  
 14 talking about a document that lists various authors  
 15 for various sections? 01:10PM  
 16 A I believe that's it, yes.  
 17 Q Okay, and I was provided with what you  
 18 describe as a mapping. For example, for the  
 19 introduction it indicates that you, Dr. Chapman, and  
 20 Dr. Hanemann wrote the introduction. Is that  
 21 what -- 01:10PM  
 22 A I, myself, Dr. Bishop and Dr. Hanemann.  
 23 Q I'm sorry. I keep confusing you with Dr.  
 24 Bishop.  
 25 A I'm honored with the confusion. 01:10PM  
 0116  
 1 Q You should be honored, yes. Okay. Is -- so  
 2 directing your attention to the introduction, can  
 3 you identify for me which portions of the  
 4 introduction you wrote as opposed to Dr. Bishop and  
 5 as opposed to Dr. Hanemann? 01:10PM  
 6 A The general process which we used, which is  
 7 not uncommon, the general process we used was to



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8 have one or two people take the initial cut at  
9 writing something and have other people look at it  
10 and work on it. Dr. Bishop and I worked very 01: 11PM  
11 closely on a number of studies. We have this one  
12 and other ones ongoing, and have developed a style  
13 where we actually are on the phone writing together  
14 at the same time. So it may be the case that I was  
15 actually typing some of the words at a time and some 01: 11PM  
16 of the cases that he was actually typing some of the  
17 words at a time. So for me to tell you which words  
18 I typed would be difficult. I can tell you that I  
19 was integrally involved with that first section and  
20 involved in writing parts of it as was Dr. Bishop 01: 11PM  
21 and Dr. Hanemann, and other people in the team  
22 looked at these, provided comments, suggestions. So  
23 they are -- it's a report by that team.  
24 Q Do you intend to testify at trial about the  
25 conclusions in this expert report? 01: 12PM

0117  
1 A I'm available to testify. I don't know  
2 whether or not I will be called to testify. I'm  
3 available to be testified if I'm asked.  
4 Q Have you been asked to testify at trial?  
5 A I have not specifically been asked. I've been 01: 12PM  
6 asked if I would be willing to and would be  
7 available, and I said yes.  
8 Q Do you have an understanding about what you  
9 will testify at trial about?  
10 A Again, I don't know specifically what I would 01: 12PM  
11 be asked to testify about.  
12 Q Can you point to any particular sections of  
13 the report that you would testify about at trial?  
14 A Again, I don't know what I'm going to be asked  
15 to testify about, so I can't tell you. I'd be 01: 12PM  
16 willing to testify about any portions of the report  
17 that would be appropriate.  
18 Q Which portions of the report would be  
19 appropriate for you to testify about?  
20 A Parts of the whole report, different parts of 01: 12PM  
21 the whole report. So there's different -- different  
22 parts of the whole report. I think in that mapping  
23 my name is probably on, if not every one of them,  
24 almost every one of those sections. I had a hand in  
25 different parts of every one of the sections of the 01: 13PM

0118  
1 report.  
2 Q You're right. On this mapping your name is  
3 listed by every chapter of the report. I was also  
4 under the impression, maybe incorrectly, from your  
5 attorney that you would be able to tell me which 01: 13PM  
6 portions of this report you would testify to at  
7 trial. Are you able to do that today?  
8 A Again, I don't know what I'm going to be asked  
9 to testify about. So I can't tell you what I would  
10 testify about at trial. 01: 13PM  
11 Q Okay.  
12 A I would be happy to testify about whatever  
13 parts they thought it was appropriate for me to  
14 testify towards.  
15 MS. XIDIS: And just so that we have a 01: 14PM  
16 clear Record on this, we did not tell you that Mr.  
17 Chapman would be able to say exactly what people  
18 would testify about at trial. We said that he would

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19 be able to give a road map and explain who did what  
20 roles in drafting this report. 01: 14PM

21 MR. DEIHL: I must have misunderstood what  
22 you said.

23 Q Your name is listed next to all seven sections  
24 of the report on the mapping that I received from  
25 your counsel. 01: 14PM

0119 A Uh-huh.

2 Q And other names are also listed next to each  
3 of those different chapters of the report. Am I  
4 correct in understanding that you can't tell me  
5 which of you wrote which portions of those different  
6 chapters; it was this iterative process you just  
7 described to me where someone was typing and someone  
8 else was on the phone? 01: 14PM

9 A In many cases there were people who developed  
10 the initial drafts of the chapters, and they were  
11 sort of the lead on those chapters coordinating and  
12 working them through, and then they wrote those  
13 initial chapters, and we revised and edited as we  
14 went along. So there were individual people who  
15 wrote the initial sections and they then got  
16 additional inputs from the team. As with all  
17 aspects of this project, it was a team joint effort.  
18 We worked on these together and we developed the  
19 report together. 01: 15PM

20 Q If asked to testify at trial, do you feel that  
21 you would be qualified to testify about all of the  
22 opinions contained in this report? 01: 15PM

23 MS. XIDIS: Objection to form.

24 A I don't know what you would say be qualified  
25 means. Could I tell you my role in this and what I  
0120 01: 16PM

1 did in each of these sections and what I did for  
2 each of these parts of it, absolutely.

3 Q No. Could you testify about the conclusions  
4 contained in this report?

5 MS. XIDIS: Objection to form. 01: 16PM

6 A In general, yes.

7 Q Well, let's go to the table of contents of the  
8 report. With respect to the executive summary, who  
9 drafted the executive summary?

10 A Myself and Dr. Bishop. 01: 16PM

11 Q Did one -- did either yourself or Dr. Bishop  
12 draft the first iteration of the executive summary?

13 A I believe Dr. Bishop did.

14 Q Describe to me the process that you and Dr.  
15 Bishop used to draft the executive summary. 01: 17PM

16 A I can't tell you what Dr. Bishop did. I can  
17 tell you what we did together or that I did.

18 Q Okay.

19 A When I started working on the executive  
20 summary with Dr. Bishop, he had a draft, and we went  
21 through and he presented to me what he had in that  
22 draft, and we talked about whether or not it was  
23 capturing in a very brief summary the key parts of  
24 the report. We felt it did. Did some wordsmithing,  
25 and that was it. 01: 17PM

0121 1 Q How about the chapter entitled introduction;  
2 who drafted the chapter entitled introduction?

3 A Again, this was a case that Dr. Bishop

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4 developed the first initial draft, and then I and I  
5 believe other members of the team -- again, you have 01: 18PM  
6 the mapping but --  
7 Q The mapping indicates Bishop, Chapman and  
8 Hanemann.  
9 A That makes -- it's clear, it's true.  
10 Q So if I'm understanding you correctly, Dr. 01: 19PM  
11 Bishop drafted the first draft?  
12 A Uh-huh, yes.  
13 Q And then he shared it with you and Dr.  
14 Hanemann?  
15 A Yes. 01: 19PM  
16 Q And what happened next?  
17 A And then we went through it section by section  
18 and developed additional comments on it, made sure  
19 that we were clear in what it was saying. It didn't  
20 get drafted -- it wasn't sort of a one-time only 01: 19PM  
21 thing. The whole report got drafted and refined  
22 over a period of weeks, months, and so that initial  
23 draft got revised as we went through the overall  
24 project.  
25 Q Are there any portions of Chapter 1 that you 01: 19PM  
0122 would not be prepared to testify about at trial?  
1 A I'd have to read through closely. In general  
2 I would say, no, I would be prepared to testify  
3 about what we did, how we used information, what  
4 information was presented, what my role was in it 01: 20PM  
5 and that basic, so I'd be -- so I don't think  
6 there's anything in here I'd be prepared not to  
7 testify about as long as it had to do with  
8 information we developed. It wasn't information  
9 developed by people outside that we brought in. 01: 21PM  
10 Q Take a look at Chapter 2 of the report. The  
11 mapping that I was provided by your attorney  
12 indicates that Dr. Bishop, you, Dr. Hanemann and Dr.  
13 Morey were lead authors on Chapter 2.  
14 A Yes. 01: 22PM  
15 Q Is that correct?  
16 A Yes.  
17 Q Who drafted the initial draft of Chapter 2?  
18 A Dr. Bishop took the initial draft. Dr.  
19 Hanemann made some suggestions, edits. I went 01: 22PM  
20 through and did some reconciliation development,  
21 making sure things flowed smoothly, and Dr. Morey  
22 reviewed it and, again, this happened a few times  
23 over different periods as we were developing the  
24 draft of the report. 01: 22PM  
0123 Q Are there any particular parts of Chapter 2  
1 that you yourself had primary authorship of?  
2 A I drafted big portions of all of these  
3 sections from the initial drafts provided to us, so  
4 I would say I drafted big portions of all of them. 01: 23PM  
5 Q Okay. Can you identify what the big portions  
6 are for me?  
7 A Again, working off of what people had already  
8 put down in terms of revising and bringing together  
9 as it sits here today, most of what sits here today 01: 23PM  
10 is as I formed it at the end.  
11 Q And this is after this iterative process that  
12 you described where you, Dr. Bishop, Dr. Hanemann  
13 and Dr. Morey all reviewed Dr. Bishop's original  
14

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15 draft? 01: 24PM  
 16 A Yes.  
 17 Q What about Chapter 3; who drafted the initial  
 18 draft of Chapter 3?  
 19 A I believe the initial draft was developed by  
 20 Dr. Bishop and myself and some junior staff at 01: 24PM  
 21 Stratus under my direction and Dr. Bishop's  
 22 directions to get some of the tables and things  
 23 together.  
 24 Q When you say the initial draft was drafted by  
 25 you and Dr. Bishop, does that mean you did it 01: 25PM  
 0124 together?  
 1 A He did certain sections and I did certain  
 2 sections initially.  
 3 Q Okay. Can you identify which sections you did  
 4 and which sections he did? 01: 25PM  
 5 A Initially?  
 6 Q Yes.  
 7 A The problem is the actual outline of the  
 8 report changed from when we initially drafted it.  
 9 So how things got moved in and who did what, it's 01: 25PM  
 10 difficult to do that direct mapping since it doesn't  
 11 really exist.  
 12 Q Okay.  
 13 A So in Section 1, I think I took the primary on  
 14 this. Section 2 I think was Dr. Bishop. Section 3 01: 26PM  
 15 was myself with help from staff to get some of the  
 16 tables and listings together. More on just the  
 17 dates of things was myself I think on the initial 3  
 18 and 3.6 and 3.7 for the initial part. 3.8, I know  
 19 this was developed initially I think by Dr. Bishop, 01: 26PM  
 20 and part of these sections were actually developed  
 21 by Dr. Hanemann I think, yeah, and 3.9 was myself  
 22 initially.  
 23 Q When you have identified who drafted it  
 24 initially, all of these chapters went through the 01: 27PM  
 0125 iterative process that you described to me where  
 1 different authors commented on different portions of  
 2 it; is that correct?  
 3 A Yes.  
 4 Q Is that true with respect to the entire  
 5 report? 01: 27PM  
 6 A Pretty much so. Chapter 5 less so because  
 7 that was all having to do with work. We provided  
 8 some comment to but not a significant comment -- or  
 9 not as much change happened to 5 as did the other 01: 27PM  
 10 chapters as I remember it.  
 11 Q Okay. Who drafted Chapter 5?  
 12 A Dr. Tourangeau.  
 13 Q Did you provide comments and changes to  
 14 Chapter 5? 01: 28PM  
 15 A I can't specifically remember what comments  
 16 and changes I provided, but I may have.  
 17 Q Okay. The mapping that I was provided by your  
 18 counsel lists you as a lead author on Chapter 5.  
 19 Would you agree with that? 01: 28PM  
 20 A I'm involved in it. I was active in it. I  
 21 provided comment on it.  
 22 Q Okay. Did you write portions of Chapter 5?  
 23 A I wrote portions of Chapter 5.3, 5.4. Those  
 24 are the two main sections where I wrote initial 01: 29PM  
 25

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EXHIBIT Q

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0126

1 stuff.

2 Q Okay. What portions of Chapter 5.3 did you  
3 write?4 A Information about how the interviewers -- this  
5 was actually pulled a lot from the Westat report and  
6 how the interviewers were trained.

01: 29PM

7 Q So it was Section 5.3.1 and 5.3.2?

8 A Yes.

9 Q Anything else?

10 A A little bit about 5.3 about what happened  
11 with the supervision, and then some of 5.4 where  
12 there was -- on the study collection, the process we  
13 went through. Again, these were pulled a lot from  
14 the report provided to us by Westat.

01: 30PM

15 Q We haven't talked about Chapter 4. On my  
16 mapping you, along with Dr. Bishop, Dr. Krosnick and  
17 Dr. Tourangeau are listed as lead authors.

01: 30PM

18 A Tourangeau.

19 Q Tourangeau are listed as lead authors. Who  
20 drafted this section initially?

01: 30PM

21 A At my request a lot of this initial outline of  
22 the survey was developed by a junior staff person  
23 that I reviewed and went through, sections 4.2 and  
24 all the sections that walk through the different  
25 basics of the survey, and then I filled in around

01: 31PM

0127

1 some of the additional information, and then the  
2 other co-authors filled in the information.3 Q Who was the staff person who drafted Section  
4 4.2, et cetera?5 A At my request under my direction, Colleen  
6 Donovan.

01: 31PM

7 Q What about Chapter 6; who was the primary  
8 drafter of the first draft of Chapter 6?9 A The first early draft of this I believe was  
10 done primarily by Dr. Kanninen, and it was added to  
11 significantly as we went through the data analysis  
12 and development.

01: 32PM

13 Q And how about Chapter 7; who drafted the  
14 initial draft of Chapter 7?15 A I believe Dr. Hanemann drafted portions of  
16 Chapter 7 first and Dr. Kanninen were the first two  
17 that did that, and then I wrote some parts of it, as  
18 did, I believe, Dr. Tourangeau.

01: 33PM

19 Q Have you discussed with counsel who among the  
20 authors of this report will be called to testify at  
21 trial?

01: 34PM

22 A No.

23 Q Directing your attention to I guess it's page  
24 Roman numeral VIII, which is a list of appendices,  
25 do you have that in front of you?

01: 35PM

0128

1 A I do.

2 Q Let's go through the same drill with this.  
3 Who was responsible for drafting the main study  
4 survey instruments, Appendix A?5 A As I said before, we worked as a team in  
6 developing the survey instrument. We were all  
7 involved in different components of the survey  
8 instrument development in different aspects of it  
9 and some of us in multiple aspects of it. So the  
10 whole team, except Dr. Kanninen, was involved in

01: 35PM

01: 35PM

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11 developing the main survey instruments.  
 12 Q And if asked, you would be prepared to testify  
 13 about the main survey instruments?  
 14 A Yes, I would be.  
 15 Q How about the pilot study survey 01: 36PM  
 16 administration, Appendix B; who drafted those  
 17 documents?  
 18 A These were reports provided to us by Westat.  
 19 So Westat developed those.  
 20 Q How about Appendix C, the main study survey 01: 36PM  
 21 administration?  
 22 A Again, that's Westat's report.  
 23 Q How about Appendix D, main survey study  
 24 marginals?  
 25 A If I could see that, that would be helpful. 01: 36PM  
 0129  
 1 Q You tell me if that's contained within Volume  
 2 II.  
 3 A Let's see. This is Appendix A. Is that what  
 4 we were talking about?  
 5 Q No. We were talking about Appendix D. 01: 37PM  
 6 A This is all Appendix A.  
 7 Q Okay. Well, your index indicates that it's  
 8 Volume II.  
 9 A It is Volume II. It's Appendix A.  
 10 Q Two, Volume II. 01: 38PM  
 11 A That's what this one is.  
 12 Q Is what I've handed you as Deposition Exhibit  
 13 No. 12 Appendix D?  
 14 A It seems to be, yes.  
 15 Q And who drafted this appendix? 01: 39PM  
 16 A Well, except for the first paragraph, the rest  
 17 of the pages are simply tables that are output --  
 18 that are transformed from output from the computer.  
 19 So this was done under my supervision and under Dr.  
 20 Kanninen's supervision by some junior staff at 01: 39PM  
 21 Stratus where we then took this information, had  
 22 them put the output from the computers into these  
 23 tables for the formatting of the document and then  
 24 reviewed them.  
 25 The second part of this -- is that all we're 01: 40PM  
 0130  
 1 doing is D, D-1?  
 2 Q I asked you about D.  
 3 A The second part of this is a report by the  
 4 strategy team on the open-ended coding process for  
 5 coding open-ended studies, open-ended responses in 01: 40PM  
 6 the survey.  
 7 Q Who is the strategy team?  
 8 A The strategy team is a company that  
 9 specializes in taking information in an open-ended  
 10 format, coding it and providing ourselves back on 01: 41PM  
 11 the coding of it.  
 12 Q Okay. If you could take a look at the main  
 13 study survey instruments, which I think was Exhibit  
 14 9, Appendix A --  
 15 MS. XIDIS: I believe it was Exhibit 11. 01: 41PM  
 16 MR. DEIHL: Exhibit 11, thank you.  
 17 Q Again, what was your role in developing this  
 18 main study survey instruments?  
 19 A In developing the main survey instrument, I  
 20 was involved in both helping design the survey, 01: 42PM  
 21 conducting focus groups and cognitive interviews and

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EXHIBIT Q



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22 in the pretesting of the survey and the -- you know,  
23 helping make sure that got administered.

24 Q When you began fielding the survey in  
25 September, the court had not yet ruled on the

01: 42PM

0131

1 plaintiff's motion for a ban on the spreading of  
2 poultry litter. Why did you ask the respondents to  
3 assume that the court had granted the plaintiff's  
4 motion?

5 A We were trying to ensure that respondents were  
6 looking at one specific area of damages, which are  
7 just the damages that are associated with the losses  
8 independent of any remedial actions -- not  
9 independent of but subsequent to remedial actions.

01: 43PM

10 Q Does making an assumption that the court had  
11 issued the injunction result in an upward bias in  
12 the percentage of votes for the alum program?

01: 43PM

13 MS. XIDIS: Objection to form.

14 A I'd have to look at this to be able to form an  
15 opinion on that because I can't answer that off the  
16 top of my head.

01: 43PM

17 Q You don't have an opinion on that sitting here  
18 today?

19 A Again, I'd have to look at this.

20 Q You'd have to look at what?

01: 44PM

21 A I'd have to look at the whole study to figure  
22 out whether I thought there was -- how do you say it  
23 -- an upward bias on the percent of people who would  
24 vote for the program.

25 Q And what would you look at to make that

01: 44PM

0132

1 determination?

2 A I'd look at the tables and data presented in  
3 the report to try and determine that.

4 Q Okay, but you did tell the respondents to  
5 assume that the court had granted the plaintiff's  
6 motion for preliminary injunction; correct?

01: 44PM

7 MS. XIDIS: Objection to form.

8 A Yes, we did. It was a way of limiting the  
9 overall scope of damages.

10 Q So what would you need to look at to determine  
11 if that statement to the respondents resulted in an  
12 upward bias in the percentage of votes for the alum  
13 program?

01: 44PM

14 A I'd need to look at the -- the specific tables  
15 and try and look at interactions across the  
16 responses on tables to make that determination.

01: 44PM

17 Q You didn't look at that as part of the  
18 drafting of this report?

19 A Since all the respondents were provided that  
20 information, we didn't look at it directly because  
21 everybody was provided with that same information.  
22 So it's not quite as straightforward.

01: 45PM

23 Q Okay. So I'm confused as to what you would  
24 look at to make that determination.

25 A I'd look at the available information. I had

01: 45PM

0133

1 not asked myself that question before. So I would  
2 have to go through and look at the information to  
3 answer that question, and I have not asked myself.  
4 I don't know if other members of the team have or  
5 haven't asked themselves that question.

01: 45PM

6 Q Wouldn't it have been consistent with good

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7 survey practices to reflect the uncertainty  
8 regarding the court's injunction that existed in the  
9 real world at the time you were conducting the  
10 survey? 01: 46PM

11 MS. XIDIS: Objection to form.

12 A I couldn't follow.

13 Q Wouldn't it have been consistent with good  
14 survey practices to reflect that uncertainty at the  
15 time you were doing your survey? 01: 46PM

16 MS. XIDIS: Same objection.

17 A Could you read back the question, please?

18 (Whereupon, the court reporter read  
19 back the previous question.) 01: 46PM

20 A I don't believe that specific uncertainty is  
21 driven by good or not good survey practices.

22 Q What do you base that belief on?

23 A We were trying to measure a specific category  
24 of damages, and that didn't -- the uncertainty about  
25 that issue doesn't come into play in what we're 01: 47PM

0134 1 trying to measure.  
2 Q Why not?

3 A Because we're trying to measure damages given  
4 that is in place.

5 Q You're trying to measure damages given that an  
6 injunction is in place? 01: 47PM

7 A Yes.

8 Q Okay. If an injunction is never entered, does  
9 that affect your damage conclusion?

10 A It's an even underestimate of damages then. 01: 48PM

11 Q Does providing the respondents with an  
12 assumption that actually didn't exist in actuality  
13 at the time they were doing the survey affect the  
14 respondents' responses on damages?

15 MS. XIDIS: Objection to form. 01: 48PM

16 A It limited them to only answering the question  
17 we were asking them and that we were interested in.

18 Q Okay. In the contingent valuation scenario,  
19 you told the respondents that 40 percent of the  
20 phosphorus was due to other causes; is that correct? 01: 49PM

21 A I'd have to look specifically, but I believe  
22 that number is about what we presented.

23 Q Okay. If you need to look at something to  
24 answer that question, go ahead.

25 A Sorry. Here we go. What we stated in the 01: 49PM

0135 1 survey was scientists have measured how much  
2 phosphorus comes into the river and lake from  
3 different sources. They have found that about 60  
4 percent of the phosphorus in the river and lake is  
5 from chickens and turkeys. The other 40 percent  
6 comes from sewage treatment plants, fertilizers  
7 brought in -- bought in stores and others sources is  
8 what we said. 01: 50PM

9 Q So you did tell the respondents that 40  
10 percent of the phosphorus was due to causes other  
11 than poultry litter; correct? 01: 50PM

12 A Yes.

13 Q Based on that statement, the respondents would  
14 logically understand that 40 percent of the future  
15 phosphorus loading would continue even after the  
16 alum treatments were implemented; correct? 01: 50PM

17 MS. XIDIS: Objection to form.

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18 A I don't know what they were assuming about the  
19 future proportions. As I sit here today, I'd have  
20 to go back and see if we could actually figure that  
21 out, but we -- I can't say whether that is a  
22 reasonable or unreasonable interpretation right now.

01: 50PM

23 Q I don't think you need to be an economist to  
24 understand this. If 60 percent of the loading was  
25 coming from poultry litter and 40 percent was coming

01: 51PM

0136 1 from something else and you're treating the poultry  
2 litter, the remaining 40 percent isn't being  
3 treated; correct?

4 MS. XIDIS: Objection to form.

5 A We do state in the survey that other things  
6 are being done to limit these other sources.

01: 51PM

7 Q Did you include a statement or a reminder at  
8 the end of the survey that a reason to vote against  
9 the alum treatment was that these other sources of  
10 phosphorus would remain?

01: 51PM

11 A As we stated in the survey, sort of standard  
12 good quality survey practices, we reminded people a  
13 bunch of reasons why they might want to vote against  
14 the program, and they included, for instance, you  
15 might think alum treatment is a bad idea and even if  
16 you think alum treatments are a good idea, you might  
17 vote against them because many rivers and lakes in  
18 Oklahoma don't have excess algae. The other rivers  
19 and lakes in Oklahoma that do have excess algae

01: 52PM

20 would not be affected by these alum treatments.  
21 Natural processes will return the river and lake to  
22 what they were like in around 1960 in 50 to 60 years  
23 without alum treatments, and if the State increases  
24 your taxes, you might prefer that it spends money on  
25 other environmental issues or on issues other than

01: 53PM

0137 1 the environment or the tax increases might be more  
2 than your household can afford to pay. Those were  
3 the things -- the five, six, seven, eight things or  
4 nine things we reminded people of, and so we did not  
5 specifically state the other alum -- the other  
6 phosphorus would be there. That's not in those  
7 statements.

01: 53PM

8 Q Do you know when the respondents voted for the  
9 alum program what they were assuming with respect to  
10 future water clarity?

01: 53PM

11 A We know the information we provided them about  
12 future water clarity and how things would recover,  
13 and so I know the information I provided them, and  
14 what specifically any one individual was assuming, I  
15 don't know.

01: 53PM

16 Q Do you know if they thought that the one-time  
17 alum program would result in clarity in perpetuity  
18 to the waters of Tenkiller Lake and the Illinois  
19 River?

01: 54PM

20 MS. XIDIS: Objection to form.

21 A Again, you're asking me to speculate about  
22 what any one individual knew, and turns out in all  
23 of economics, whether it's in natural resource  
24 economics or in market economics, we don't actually  
25 know what people are thinking about when they make

01: 54PM

0138 1 these choices.  
2 Q What did you tell them about water clarity in

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3 the survey?  
 4 A We told them that it would return to  
 5 conditions that were about 1960 and depending on 01: 54PM  
 6 whether or not the program was put in place or not  
 7 in different time periods.  
 8 Q And upon what did you base that statement that  
 9 it would return the water to 1960 levels?  
 10 A From conversations with the natural scientists 01: 54PM  
 11 and -- multiple conversations and discussions with  
 12 the natural scientists about what the sort of water  
 13 clarity should have looked like.  
 14 Q So if I wanted to know how the natural  
 15 scientists determined what the water clarity looked 01: 55PM  
 16 like in 1960, I'd have to talk to them?  
 17 A Yeah.  
 18 Q Was there any data that you reviewed that  
 19 talked about the level of water clarity in 1960?  
 20 A Again, I'm not a natural scientist. I looked 01: 55PM  
 21 at the various reports. I'd have to go back and  
 22 identify each of them to see what I did. To  
 23 identify sort of what types of information they were  
 24 developing, I looked at some of their modeling  
 25 results to sort of make sense of what they were 01: 55PM  
 0139  
 1 saying and trying to understand what they were  
 2 saying. So I looked at those sorts of information.  
 3 Q How was the year 1960 chosen; do you know?  
 4 A It was a period at which provided reasonable  
 5 touchstone about the quality of the environment 01: 56PM  
 6 before these changes, and it was developed I think  
 7 specifically through conversations between Dr.  
 8 Bishop and some of the natural scientists.  
 9 Q You said earlier that you didn't know what an  
 10 individual respondent thought about whether the 01: 56PM  
 11 one-time alum program would result in clarity into  
 12 perpetuity; correct?  
 13 A Again, I'm not inside the head.  
 14 Q Understood.  
 15 A That's what makes this job challenging is 01: 56PM  
 16 trying to identify information and so --  
 17 Q Didn't you ask them follow-up questions to ask  
 18 them what they considered?  
 19 A Uh-huh.  
 20 Q And you did that for each respondent; correct? 01: 57PM  
 21 A Yes, we did.  
 22 Q And what did those follow-up questions  
 23 conclude about what they considered?  
 24 MS. XIDIS: Objection to form.  
 25 A To answer your question sufficiently, I'd have 01: 57PM  
 0140  
 1 to go through each of the follow-up questions and  
 2 the associated tables and talk to you about each of  
 3 those that we saw. I'd be happy to do that if you'd  
 4 like me to.  
 5 Q Why don't you direct me to what follow-up  
 6 questions and tables you're referring to? 01: 57PM  
 7 A So the follow-up questions -- well, there's a  
 8 number of them. So -- let's see. The first one I  
 9 come across that I think I would want to look a  
 10 little bit at is Q-17A. 01: 59PM  
 11 Q What page is that on?  
 12 A I'm sorry. It's on Page A-11. Q-18A, Q-19A,  
 13 Q-20A, Q-22A, Q-23A, W-1A, W-3, Q-25, Q-26, Q-28,

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14 Q-29, Q-30, Q-31, Q-34, Q-55 and Q-55A. Those would  
15 be the main ones. 02: 02PM  
16 Q Based on those follow-up questions, did you  
17 reach a conclusion whether or not respondents  
18 thought their tax payments would buy water clarity  
19 for only a limited time or in perpetuity?  
20 A Again, I said I would have to go through and 02: 02PM  
21 look at those questions to develop that opinion.  
22 Q Okay, and you haven't developed that opinion?  
23 A As I sit here today, I have not yet. I don't  
24 remember whether other members of the team have or  
25 have not. 02: 02PM  
0141  
1 Q If you don't know whether or not the  
2 respondents knew that they were buying water quality  
3 in perpetuity or for a limited period of time, then  
4 how can the resulting willingness to pay reflect a  
5 reliable value? 02: 03PM  
6 MS. XIDIS: Objection to form.  
7 A I think the reliability of the willingness to  
8 pay is defined by a number of things, not the least  
9 of which is a number of sort of best practice  
10 guidance documents that were developed, some of 02: 03PM  
11 which while I was at NOAA that I helped develop or  
12 implement, and standard practices after that  
13 adhering to commonly accepted methods of survey  
14 research and survey design. All of these things  
15 come into play to develop the reliability of the 02: 04PM  
16 willingness to pay estimates.  
17 Q Isn't the willingness to pay estimates  
18 grounded on an assumption that the respondents  
19 understand what they're paying for and that you tell  
20 the respondents what they're paying for? 02: 04PM  
21 MS. XIDIS: Objection to form.  
22 A Yes.  
23 Q And here you said you didn't look at whether  
24 or not the respondents understood that they were  
25 paying for water clarity in perpetuity or water 02: 04PM  
0142  
1 clarity for a limited period of time. So how can  
2 the willingness to pay conclusion be accurate if you  
3 don't know what the respondents thought they were  
4 paying for?  
5 MS. XIDIS: Objection to form. 02: 04PM  
6 A That's not what I said. I didn't say I don't  
7 know what I think the respondents were paying for.  
8 We presented a careful description of the injury and  
9 the changes in the environment over time and the 02: 05PM  
10 changes that would occur because of the  
11 implementation of a program to clean up the  
12 environment, and we told them how much sooner that  
13 would happen, and what they were paying for was that  
14 happening sooner than it would happen otherwise.  
15 That's what they were paying for. What they 02: 05PM  
16 considered afterwards in the otherwise is not  
17 functional. It doesn't come directly into that  
18 description. What they're buying is a cleaning up  
19 of the environment sooner. That's the good that  
20 they're buying. 02: 05PM  
21 Q Did you measure what the cleaning up of the  
22 environment -- strike that. Did you look at the  
23 other 40 percent of phosphorus loading into  
24 Tenkiller Lake and the Illinois River and look at

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EXHIBIT Q

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25 whether that other 40 percent would remain after the 02: 06PM  
0143 alum treatments?  
1 MS. XIDIS: Objection to form.  
2 A Did I specifically --  
3 Q No. Did the team?  
4 A Did we look at the 40 percent? I'm sorry. 02: 06PM  
5 Can you read back the question?  
6 (Whereupon, the court reporter read  
7 back the previous question.)  
8 A Could you be more specific in terms of what  
9 did we look at? 02: 07PM  
10 Q Why don't we take a break because the tape is  
11 about to run out and then I will be.  
12 VIDEOGRAPHER: We're now off the Record.  
13 The time is 2:07 p.m.  
14 (Following a short recess at 2:07 p.m., 02: 07PM  
15 proceedings continued on the Record at 2:13 p.m.)  
16 VIDEOGRAPHER: We are back on the Record.  
17 The time is 2:13 p.m.  
18 Q Before we took a break, we were talking about  
19 whether or not the respondents thought that a 02: 13PM  
20 one-time alum program would result in clarity into  
21 perpetuity or for a period of time or whatever.  
22 What was the basis for the factual information that  
23 you presented in your survey?  
24 A I need you to be more specific about what you 02: 14PM  
0144 mean by factual.  
2 Q Well, for example, on Page A-66 you state, as  
3 a result of alum treatments, the lake would be back  
4 to what it was like in 1960 about 50 years from now.  
5 Water in the lake would then be clear nearly all the 02: 15PM  
6 time and there would be little algae in the water  
7 and on the bottom. There would be plenty of oxygen  
8 in the water. Species of fish, insects and small  
9 animals and small plants that used to be common  
10 would slowly increase in numbers, replacing those 02: 15PM  
11 that live in water with lots of algae. There would  
12 be fewer of some species, such as largemouth bass.  
13 What did you base that statement on?  
14 A That statement is part of the scenario that we  
15 developed that describes the fact that the 02: 15PM  
16 environment can be fixed up, and so this is just a  
17 statement that says if you were to implement a  
18 program like this to the respondents, that the  
19 program would have certain effects that would undo  
20 the changes in the environment that have occurred. 02: 16PM  
21 Q And sitting here today, do you know whether or  
22 not that is true, that if you implemented an alum  
23 program, it would result in the effects that I just  
24 read you?  
25 A This is one of the parts of the survey where 02: 16PM  
0145 we present part of the scenario to respondents that  
1 say there's a way to fix this problem and we use  
2 this as a measure of people's willingness to pay to  
3 not have the problem there, and this describes  
4 removing that problem, and so unfortunately the 02: 16PM  
5 recommended or correct way to do this would be to  
6 ask people's willingness to accept the injury they  
7 had to endure, but that's not possible. We didn't  
8 do that, and so we have to develop a scenario that

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EXHIBIT Q



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10 asks people what's their willingness to pay to undo 02: 17PM  
 11 a problem that they have been forced to endure, and  
 12 so this describes the undoing of the problem.  
 13 Q And do you know if the problem can be undone  
 14 by adding alum, by doing these alum treatments that  
 15 you've described to the respondents? 02: 17PM  
 16 A Me personally do I know?  
 17 Q Yes.  
 18 A I do not know personally.  
 19 Q Did the team reach a conclusion about whether  
 20 or not the alum treatments would return the water to 02: 17PM  
 21 the clarity that's described in your survey?  
 22 A No. We reached a conclusion that presenting  
 23 this information to the respondents at this time in  
 24 the survey helped us measure what we were trying to  
 25 measure, which is the individual's willingness to 02: 18PM  
 0146 pay to undo the problem.  
 2 Q If the problem couldn't be undone, would that  
 3 affect your survey results?  
 4 A I don't think so, but I'd have to think some  
 5 more about that, but as I sit here today, I don't 02: 18PM  
 6 think so.  
 7 Q So even if it was simply false, that adding  
 8 alum, doing these alum treatments -- strike that.  
 9 Even if doing this alum program that you've  
 10 described wouldn't return the water to the clarity 02: 19PM  
 11 levels of 1960, it wouldn't make any difference to  
 12 the outcome of your survey?  
 13 MS. XIDIS: Objection to form.  
 14 A There were multiple questions in there. I'm  
 15 trying to figure out which ones to answer. 02: 19PM  
 16 Please --  
 17 (Whereupon, the court reporter read  
 18 back the previous question.)  
 19 A What matters is what the respondents  
 20 understood. What matters is what the respondents 02: 19PM  
 21 understood and did the respondents understand that  
 22 the water clarity could be returned. If the  
 23 respondents, which we think we did a very good job  
 24 in describing the situation, describing a fix and  
 25 understanding how they reacted to that fix, as long 02: 20PM  
 0147 as the respondents took this as being a plausible  
 1 scenario to return the water clarity back to the  
 2 conditions they cared about, then whether or not it  
 3 was actually a program that could be actually  
 4 implemented in this time frame wouldn't change those 02: 20PM  
 5 results.  
 6 Q So if I understood you correctly, you're  
 7 telling me that there does not need to be a factual  
 8 basis for undoing the harm?  
 9 A There needs to be a plausible basis to the 02: 20PM  
 10 respondents. It's only a mechanism by which we tell  
 11 the respondents we can return the environment to the  
 12 condition it should be in, and it's only that as a  
 13 mechanism. So whether or not that mechanism  
 14 actually exists at that time is not the key issue. 02: 21PM  
 15 Q You used the word plausible basis to the  
 16 respondents. My question was, does there need to be  
 17 a factual basis for undoing the harm?  
 18 A Again, this is all about how the respondents  
 19 respond to the information we present them, and this 02: 21PM  
 20

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21 discussion here on this part here is about whether  
22 or not the respondents understood the information we  
23 provided to them and found the fact that there was  
24 actually some solution in their minds that they  
25 could get the cleaned-up environment, and that's 02: 21PM

0148

1 what this is doing.

2 So whether or not they know it's absolutely  
3 feasible and technically possible at that time  
4 doesn't drive that. It's whether or not they think  
5 there's a way to fix it. 02: 22PM

6 Q And it doesn't matter whether or not the way  
7 they think they can fix it is impossible?

8 MS. XIDIS: Objection to form.

9 A I think if a respondent thinks it's impossible  
10 to fix it, then they wouldn't be willing to pay to 02: 22PM  
11 fix it.

12 Q I'm not asking now what the respondent thinks.  
13 I'm asking if factually it is impossible to fix it  
14 and the respondent believes it is possible, does  
15 that make any difference to your survey? 02: 22PM

16 MS. XIDIS: Objection to form.

17 A Any difference in what way?

18 Q Any difference in the validity of your survey.

19 A No.

20 Q So if you tell the respondents that they could  
21 do an alum treatment this spring and the water would  
22 be returned to 1960 clarity next fall and that's  
23 false, and you measured the willingness to pay that  
24 the respondents gave you for returning the water to  
25 clarity by this fall, that would be a valid survey 02: 23PM

0149

1 methodology?

2 MS. XIDIS: Objection.

3 A That doesn't describe a survey methodology.

4 Q It describes a scenario that you would provide  
5 to the respondent. If you were to provide that  
6 scenario to the respondent knowing that it was  
7 absolutely impossible, would that affect the results  
8 of your survey? 02: 24PM

9 MS. XIDIS: Objection to form.

10 A I can't tell you what presenting that  
11 information would do to that survey. It would be a  
12 different survey than this survey. 02: 24PM

13 Q Does it even matter that the State's  
14 restoration consultant, Mr. King, considered an alum  
15 restoration program for the results of your survey? 02: 24PM

16 MS. XIDIS: Objection to form.

17 A Does it matter? I would have to think about  
18 it some more, but I don't believe it would, but I'd  
19 have to think about it some more.

20 Q So when I read this statement to you about,  
21 you know, there would be plenty of oxygen in the  
22 water, et cetera, et cetera, it wouldn't matter --  
23 what you're telling me is that's not based -- that  
24 doesn't necessarily have to be based on any factual  
25 predicate; you could just tell people for purposes 02: 25PM

0150

1 of the survey that a particular program would return  
2 the water to water clarity levels of 1960 and that  
3 would be enough?

4 MS. XIDIS: Objection to form.

5 A I don't believe that would be enough. 02: 26PM

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6 Q As long as they believed you?  
7 MS. XIDIS: Objection to form.  
8 A That they believed me?  
9 Q Believed the surveyors.  
10 A Believed the information presented in the 02: 26PM  
11 survey?  
12 Q Yes.  
13 A Given they believed the information in the  
14 survey, they would be basing their answers in that  
15 survey on that information. 02: 26PM  
16 Q Correct, and it wouldn't matter to the survey  
17 results whether the information presented in the  
18 survey was factually accurate or not?  
19 MS. XIDIS: Objection to form.  
20 A I didn't say that. There's lots of 02: 26PM  
21 information. Some of it is factual; some of it's  
22 this sort of information. So I wouldn't say that.  
23 Q What was the basis for the information in the  
24 survey about effects on fish and other biota?  
25 A Again, we often talked to the natural 02: 27PM  
0151  
1 scientists, and Dr. Bishop was the lead communicator  
2 with the natural scientists, but we often talked  
3 with the natural scientists about effects of -- that  
4 were going on in the river and lake and how we were  
5 presenting it and making sure we were accurately 02: 27PM  
6 representing what they understood to be the  
7 situation, and so the natural scientists were the  
8 basis of that information.  
9 Q Did you have any scientific support for that  
10 information other than your conversations with the 02: 27PM  
11 natural scientists on the plaintiff's team?  
12 A I personally did not. You would have to check  
13 with others in the team.  
14 Q We talked earlier about the statement in the  
15 survey that 60 percent of the phosphorus loading 02: 28PM  
16 came from poultry litter and 40 percent came from  
17 other sources, and you said that you had told the  
18 respondents that the other 40 percent was being  
19 treated. Did I hear you correctly?  
20 A I don't know if I used the word treated. 02: 28PM  
21 Q I don't think you did use the word, but what  
22 word would you use?  
23 A I could tell you because we said it, so let me  
24 tell you.  
25 Q Was the word addressed? 02: 28PM  
0152  
1 A I -- let me see what we said.  
2 Q That's fine.  
3 A We said the State of Oklahoma is taking  
4 actions to reduce the amount of new phosphorus that  
5 goes into these rivers and lakes from these other 02: 29PM  
6 sources. For example, sewage treatment plants are  
7 being improved and the state environmental agencies  
8 will enforce new rules so that other fertilizers do  
9 less harm.  
10 Q On what did you base that statement? 02: 29PM  
11 A Again, this is part of our development of a  
12 scenario that says the problem can be fixed. So we  
13 developed this information on -- as a team and made  
14 sure it was plausible and reasonable.  
15 Q Okay. Do you know whether or not -- what page 02: 30PM  
16 are you on there?

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17 A I'm on Page A-14.  
 18 Q Do you know whether or not the State is  
 19 actually doing additional things to reduce  
 20 phosphorus in the Illinois River, Flint Creek and 02: 30PM  
 21 Baron Fork Creek?  
 22 A I personally do not know.  
 23 Q Who wrote this section of the questionnaire;  
 24 do you know?  
 25 A I couldn't tell you who specifically wrote 02: 30PM  
 0153  
 1 this text as it sits in this version right here.  
 2 Again, it's -- it was a team effort. Multiple  
 3 people talked and worked on the whole survey  
 4 multiple times.  
 5 Q Were you involved in writing the verbiage you 02: 30PM  
 6 just read to me?  
 7 A Yes, I was.  
 8 Q When the language, the State is doing  
 9 additional things to reduce phosphorus in the  
 10 Illinois River was written, did you talk to anyone 02: 31PM  
 11 about whether or not that statement is accurate?  
 12 A I'm sorry, where are you reading?  
 13 Q It's on Page A-14 after it says flip card to  
 14 next page, the following sentence.  
 15 A Okay. The State is doing additional things. 02: 31PM  
 16 I'm sorry, your question again?  
 17 Q Did you talk to anyone about whether or not  
 18 that statement is accurate?  
 19 A Yes.  
 20 Q Who did you talk to? 02: 32PM  
 21 A Talked to the natural scientists and talked to  
 22 the attorneys in the case, the State.  
 23 Q So you base that statement on your discussions  
 24 with the natural scientists and the attorneys in the  
 25 case? 02: 32PM  
 0154  
 1 A Yes.  
 2 Q The same would be true about the previous  
 3 paragraphs that you read to me; did you base that on  
 4 your conversations with the natural scientists and  
 5 the attorneys in the case? 02: 32PM  
 6 A No, I didn't say that.  
 7 Q Okay. What did you base those other two  
 8 paragraphs on, the ones you read aloud?  
 9 A I said I told you those were parts of the  
 10 scenario we developed to make people understand that 02: 32PM  
 11 the problem could be fixed.  
 12 Q And why did you feel it was important to tell  
 13 people that the State of Oklahoma was taking action  
 14 to reduce the amount of new phosphorus that goes  
 15 into these rivers and lakes from these other 02: 33PM  
 16 sources?  
 17 A Because, again, we only wanted our respondents  
 18 to provide us their willingness to pay or provide us  
 19 their answers to a question that dealt with that  
 20 period between -- that addressed -- was addressed by 02: 33PM  
 21 that period in our scenario, and this removes part  
 22 of that period from our scenario.  
 23 Q Based on this statement, the respondents  
 24 believed that the State of Oklahoma was taking  
 25 action to reduce the amount of new phosphorus that 02: 33PM  
 0155  
 1 goes into these rivers and lakes from other sources;

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2 correct?  
3 A I believe they did. The next statement says  
4 specifically what we told them the State was doing.  
5 Q And, again, does it matter to the results of 02: 33PM  
6 your survey whether or not that statement is true?  
7 MS. XIDIS: Objection, form.  
8 A I -- if this statement is not true, then the  
9 measure in the survey is even a greater  
10 underestimate of damages. 02: 34PM  
11 Q Why is that?  
12 A Because then the river and lake would not  
13 recover as quickly as we described.  
14 Q Correct, and if the respondents didn't think  
15 that the river and lake would recover as quickly as 02: 34PM  
16 you described, would they be more or less willing to  
17 pay for the alum treatments in your opinion?  
18 A If they thought that the ban was not going to  
19 be put in place, then they might very well be -- I'd  
20 have to think about this. There's a couple of 02: 35PM  
21 things that work in different directions here. So  
22 I'd actually have to go back and think specifically  
23 about the possibilities of how this would be  
24 effected, but I think we could work this through.  
25 Q And you didn't think about that before you put 02: 35PM  
0156 together this survey, or did you?  
1 A I did. I know I did.  
2 Q Okay, and what did you conclude about that?  
3 A As I'm sitting here right now, I'd have to go  
4 back and think about this. 02: 35PM  
5 Q Okay. So you're not prepared to testify at  
6 trial about that?  
7 A I didn't say that.  
8 Q Okay. Well, we're here today to find out what  
9 you're prepared to testify at trial about, and I'm 02: 35PM  
10 asking you this question.  
11 A Okay, and I'm happy to work on it to figure it  
12 out for you.  
13 Q That's okay. I don't want -- I don't want to  
14 take the time for you to do that. Did you tell the 02: 36PM  
15 respondents that if a poultry litter ban went into  
16 place, farmers would use other sorts of fertilizer  
17 on their fields in place of the poultry litter?  
18 A Did we present that information in the survey;  
19 is that what you're asking? 02: 36PM  
20 Q Uh-huh, yes.  
21 A Again, could you repeat the survey -- the  
22 question, please?  
23 (Whereupon, the court reporter read  
24 back the previous question.) 02: 36PM  
0157  
1 A Let me see. I'll tell you if we told them  
2 that or not. What we told people is if a court  
3 banned spreading --  
4 Q Excuse me. What page are you reading from?  
5 A A-19. 02: 38PM  
6 Q Thank. Go ahead.  
7 A If a court banned spreading of poultry litter,  
8 the industry will have to safely get rid of all the  
9 litter they produce from now on. The industry will  
10 have to pay for this, and the river and lake will 02: 38PM  
11 naturally return to what they were like in around  
12 1960. If people of Oklahoma want this to happen 40

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EXHIBIT Q

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13 years sooner, there will be an additional cost, and  
14 it goes on.

15 Q Okay.

02: 38PM

16 A And we -- so that's what we told people about  
17 the effects of the ban.

18 Q Let's talk a little bit about the bid design  
19 that you used in this survey. How did you select  
20 the bid levels used in the study?

02: 39PM

21 A It was an iterative process, standard design.  
22 We developed initial ranges at the initial part of  
23 the survey, and then developed -- as we moved along,  
24 we developed more -- we developed newer bid ranges,  
25 and so it was an iterative process that we

02: 39PM

0158  
1 developed. Dr. Kanninen, who is probably one of the  
2 best bid designers in the world out there, helped us  
3 with that bid design.

4 Q Okay. First of all, who is we?

5 A The team.

02: 40PM

6 Q The people listed on the report?

7 A Yes.

8 Q And you said you came up with initial ranges.  
9 Describe for me how you go about doing that.

10 A We -- based on people's extensive experience  
11 in the area of natural resource damage assessments  
12 and contingent valuation and other valuation studies  
13 that the team brought to this subject, people had  
14 experience developing bids and experience developing  
15 initial ranges of bids, and so those were used in  
16 the first rounds of the -- or the initial early  
17 rounds of the focus group to help understand what  
18 that might be, what those would be.

02: 40PM

19 Q And then I take it you used those initial bids  
20 with your focus groups?

02: 40PM

21 A I believe we did, yes.

22 Q And what did the focus group process tell you  
23 about those initial bids?

24 A I'd have to go back to the very initial ones  
25 to see exactly what we used, but we kept iterating

02: 41PM

0159  
1 and refining them as we went through.

2 Q What's the goal of that iterative refining  
3 process?

4 A To develop a reasonable and -- to develop the  
5 bids, to develop a reasonable range of bids.

02: 41PM

6 Q How do you determine what's a reasonable range  
7 of bids?

8 A Again, I would suggest you talk to Dr.  
9 Kanninen, who is the expert on this and helped to  
10 focus on this issue.

02: 41PM

11 Q Okay. So you couldn't be testifying at trial  
12 about the reasonable range of bids?

13 A I would testify that I think we had a  
14 reasonable estimation in here, and we followed a  
15 good standard procedure to developing those ranges.  
16 The exact technical definition of what a reasonable  
17 range of bids are, I would leave to Dr. Kanninen.

02: 41PM

18 Q Okay. So you wouldn't be prepared to testify  
19 at trial about what a reasonable range of bids are?

20 A As I just said, I would be happy to talk about  
21 how you develop a reasonable range of bids, that we  
22 have a reasonable range of bids and how we developed  
23 that process. The exact definitions of what a

02: 42PM



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24 reasonable range of -- what a reasonable bid is,  
25 based on the optimal design bid criteria, I would 02: 42PM

0160

1 I leave to Dr. Kanninen.

2 Q Well, how do you know this is a reasonable  
3 range of bids if you are going to defer to Dr.  
4 Kanninen about what is a reasonable range of bids?

5 A Dr. Kanninen, and because I talked with her 02: 42PM  
6 about this, the team talked with her about this, and  
7 we asked her questions about what they were, why  
8 they were developed, what she had considered and not  
9 considered in developing them, the information that

10 we had given her, the overall information that we 02: 42PM  
11 had provided. So I was keenly aware of the

12 decisions. I'm just saying if you want the  
13 technical scientific definitions of the optimal bid,  
14 you should ask Dr. Kanninen.

15 Q Well, actually what I want is what you're 02: 43PM  
16 going to testify at trial about concerning a  
17 reasonable range of bids.

18 A That we have a reasonable range of bids, that  
19 the bids might be a little on the low side actually.

20 Q And what do you base that on? 02: 43PM

21 A What do I base that on? That there's still a  
22 number of people at the highest bid amount that are  
23 willing to say yes in the main survey.

24 Q What are you, as a survey designer, trying to 02: 43PM  
25 accomplish with this reasonable range of bids, with

0161

1 this range of bids?

2 MS. XIDIS: Object to form.

3 A I'm trying to accomplish a conservative lower  
4 bound estimate of willingness to pay.

5 Q You've spoken several times about Dr. 02: 44PM  
6 Kanninen's expertise in this area. There's no  
7 science to the selection of bid levels, is there?

8 MS. XIDIS: Objection to form.

9 A I would disagree.

10 Q Okay. What's the science? 02: 44PM

11 A There's a lot of literature on designing of  
12 bids, a lot of scientific literature on criteria for  
13 selecting bids and designing bids, and there's --

14 Q Can you cite me to some of that literature?

15 A Actually Dr. Kanninen has a book on it. 02: 45PM

16 Q What's the title of that book?

17 A I'd have to go look it up. I don't know it.  
18 Her dissertation was on optimal bid design, and I  
19 would cite you to her dissertation, and there's a  
20 number of other articles on optimal bid design and  
21 contingent valuation studies. 02: 45PM

22 Q Okay. Authored by anyone other than Dr.  
23 Kanninen?

24 A Yes.

25 Q Okay. Whom? 02: 45PM

0162

1 A Dr. Alberty, Dr. Carson. I'd have to go back  
2 and look at all of them, but there's a number of  
3 them.

4 Q Are they cited in your report?

5 A I believe they are, but I'd have to check. 02: 45PM

6 Q So you said there's a lot of science related  
7 to bid designs. Can you describe that to me, what  
8 do you do to determine if you've got the proper

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9 level of bid design?  
 10 MS. XIDIS: Objection to form. 02: 46PM  
 11 A There's a number of criteria.  
 12 Q What are they?  
 13 A It's D optimality. I think I want to say D  
 14 and F -- H optimality, and there's a number of  
 15 optimality criteria that are used. 02: 46PM  
 16 Q What does D optimality mean?  
 17 A It has to do with the determinant of the  
 18 Hessian of the variances associated with the  
 19 different bid scenarios.  
 20 Q And what is H optimality have to do with? 02: 46PM  
 21 A I think it's the derivatives, the specific  
 22 derivatives of the Hessian. I'd have to go back and  
 23 check directly. Again, that's why I recommend Dr.  
 24 Kanninen specifically for this.  
 25 Q So, again, you'd have to go back and review 02: 47PM  
 0163  
 1 things in order to answer that question?  
 2 A Yes.  
 3 Q Sitting here today, you're not prepared to  
 4 testify about that any more than you already have?  
 5 A On the optimal bid design criteria? 02: 47PM  
 6 Q Yes.  
 7 A No, I'm not.  
 8 Q How do you select the bids that will result in  
 9 reliable willingness to pay estimates?  
 10 A Again, the bids are just one part of the 02: 47PM  
 11 overall survey that ensure that the willingness to  
 12 pay estimates are reliable. The bids -- as I  
 13 described to you, we use an iterative process to  
 14 understand the bid range, an appropriate bid range  
 15 and evaluate those ranges. 02: 48PM  
 16 Q Okay. I still don't understand this iterative  
 17 process. What's the point of the iterative process;  
 18 what do you do in these different iterations?  
 19 MS. XIDIS: Object to form.  
 20 A The point is to find an efficient bid design. 02: 48PM  
 21 Q And how do you go about doing that?  
 22 A Through an iterative process.  
 23 Q Describe that to me.  
 24 A We try some bids.  
 25 Q When you say you try some bids, what do you 02: 48PM  
 0164  
 1 mean?  
 2 A In the focus groups we use some range of bids.  
 3 We see how those work. In different focus groups we  
 4 try different ranges of bids. We see how those  
 5 work. In the pretest we tried ranges of bids. We  
 6 saw how those worked. In the pilot studies we  
 7 further refined the bid and we tried how they  
 8 worked, and so the iterative process is like I would  
 9 think almost all good scientific process. You start  
 10 with a process. You update appropriate -- 02: 49PM  
 11 appropriately based on information you get, and then  
 12 you continue on, and we did that iteratively.  
 13 Q And in this iterative process, were you also  
 14 changing the survey document?  
 15 A Yes. 02: 49PM  
 16 Q Okay. So as you're going through this  
 17 iterative process, you're changing the bid amounts  
 18 and you're also changing the statements that you're  
 19 providing to the respondents; correct?

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EXHIBIT Q

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20 A Yes. 02: 49PM  
 21 Q And what conclusion are you looking for based  
 22 on that?  
 23 A Whether everything together is working well.  
 24 Q And when you say working well, what does that  
 25 mean? 02: 49PM  
 0165  
 1 A Whether based on the extensive experience by  
 2 the survey designers in this project, they feel that  
 3 the survey is working well. People are responding  
 4 to the information provided and people are  
 5 responding to the bid levels and that the 02: 50PM  
 6 information is flowing well.  
 7 Q For some of these bids, your payment was for a  
 8 five-year period, not the one year used in the  
 9 survey; correct?  
 10 A Yes. 02: 50PM  
 11 Q Why was that?  
 12 A Some members of the team thought that a  
 13 one-time payment severely underestimated people's  
 14 willingness to pay for cleaning up this environment.  
 15 And there's -- he presented information that if you 02: 51PM  
 16 allow people to pay for a program like this over  
 17 time, as with many things we buy, they're willing to  
 18 pay more for it and be closer to revealing their  
 19 true willingness to pay for these types of programs,  
 20 and so we tried out a five-year scenario to see how 02: 51PM  
 21 people would be willing to pay and react to that.  
 22 Q How did that factor into this iterative  
 23 process, the one year versus five year?  
 24 A We tried a few with the five year and then we  
 25 came back to the one year. 02: 51PM  
 0166  
 1 Q How can you compare bids on a five-year  
 2 payment plan to bids on a one-year payment plan?  
 3 A Again, it was part of the iterative process,  
 4 and one of the questions that came up to us was how  
 5 would we analyze the program and use the data from a 02: 52PM  
 6 five-program, and that, along with, you know, other  
 7 pieces of information, made us decide to go back to  
 8 the more conservative one-year program.  
 9 Q What's the highest bid you pretested?  
 10 A I'd have to go back and look in the report. 02: 52PM  
 11 Q Where would you have to look?  
 12 A I'd either have to look in the report or in  
 13 all the supporting information we provided you.  
 14 Q Okay. So you don't have that sitting here  
 15 today? 02: 52PM  
 16 A I told you I would have to look in the report.  
 17 Q Did the highest bid have the choke effect that  
 18 you intended?  
 19 MS. XIDIS: Objection to form.  
 20 A I'm not sure what choke effect you're 02: 52PM  
 21 referring to.  
 22 Q Okay. So you don't know what I mean by choke  
 23 effect?  
 24 A I do not know what you mean by choke effect.  
 25 Q Have you ever heard the term choke effect? 02: 52PM  
 0167  
 1 A In which context?  
 2 Q In the context of doing these sort of bid  
 3 design.  
 4 A I have -- I don't know if I've heard it

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EXHIBIT Q

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5 referenced specifically as choke effects. I don't 02: 53PM  
 6 know exactly what you mean by choke effects.  
 7 Q Have you ever heard it referenced as a choke  
 8 prize -- price? I'm sorry.  
 9 A Choke price?  
 10 Q Yes. 02: 53PM  
 11 A Choke price specifically refers to most often  
 12 in some demand model the price at which nobody would  
 13 go to a recreation site or nobody would choose to  
 14 buy a good. That's typically what the choke price  
 15 is. 02: 53PM  
 16 Q And were you looking for a choke price when  
 17 you were doing this iterative process?  
 18 A I personally was not looking for a choke  
 19 price.  
 20 Q Was the team looking for a choke price? 02: 53PM  
 21 A I can't tell you what other members of the  
 22 team specifically were looking for. So I can't tell  
 23 you whether or not individuals were looking  
 24 specifically for the price at which nobody would  
 25 vote yes for the program. 02: 54PM  
 0168  
 1 Q Sitting here today, do you know how high of a  
 2 price the program would have had to go before no one  
 3 was willing to pay where you hit the choke price?  
 4 A No, I don't.  
 5 Q You're not prepared to testify about that at  
 6 trial? 02: 54PM  
 7 A I have no information on that. I know for  
 8 many people how high the price has to go. I don't  
 9 know the price at which nobody would vote for the  
 10 program. 02: 54PM  
 11 Q Can you cite any literature that demonstrates  
 12 a choke price for a non-use commodity?  
 13 A That cites a choke price or that has a choke  
 14 price bid?  
 15 Q Let me read the question again or state the  
 16 question again. Can you cite any literature that  
 17 demonstrates a choke price for a non-use commodity?  
 18 A Nothing comes to my head right away.  
 19 Q Do you recall what the highest bid you  
 20 pretested was? 02: 55PM  
 21 A Again, as I said before, I'd have to look  
 22 through the materials we provided in the report to  
 23 tell you that.  
 24 Q Do you know what percentage of the respondents  
 25 said yes to that highest bid number you used? 02: 56PM  
 0169  
 1 A Again, I'd have to look at the information.  
 2 We provided all that information to you.  
 3 Q You were involved in the Exxon Valdez study;  
 4 correct?  
 5 A As I described before. 02: 56PM  
 6 Q Do you recall what the highest bid was that  
 7 was used in that study?  
 8 A I do not.  
 9 Q Did that have any bearing on the highest bid  
 10 you used in this study? 02: 56PM  
 11 A I don't believe so. The bids in this study  
 12 were based on the information in this study.  
 13 Q How many studies in the published literature  
 14 used bids higher than \$400; do you know?  
 15 A I do not know off the top of my head every bid 02: 56PM

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EXHIBIT Q

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16 design.  
 17 Q Do you know of any?  
 18 A Again, I'd have to look. I don't know off the  
 19 top of my head that number.  
 20 Q Okay. Sitting here today, you just don't 02: 57PM  
 21 know?  
 22 A (Witness shakes head from side to side).  
 23 Q Okay.  
 24 A I mean, I don't know and what's important is  
 25 the bid design for this study. What other studies 02: 57PM  
 0170  
 1 developed their specific designs are for their  
 2 studies and what's appropriate for their studies.  
 3 So transferring that bid design to this bid design  
 4 is not necessarily relevant.  
 5 Q What difference does it make to the results of 02: 57PM  
 6 the survey if your top bid number was 2,000 instead  
 7 of 400?  
 8 MS. XIDIS: Objection to form.  
 9 A I can't answer that question as I sit here  
 10 today. 02: 57PM  
 11 Q What difference does it make that you have  
 12 different bid numbers in a survey like this?  
 13 MS. XIDIS: Objection to form.  
 14 A The bid numbers that we have are efficient in  
 15 estimating the lower bound estimate we want, the 02: 58PM  
 16 lower bound willingness to pay for this program.  
 17 Q And how do you know that they're efficient in  
 18 estimating that?  
 19 A Because they're approaching true willingness  
 20 to pay from below. 02: 58PM  
 21 Q What do you mean by that?  
 22 A With the bid design and the non-parametric  
 23 analysis conducted, the willingness to pay  
 24 calculation estimated from our survey approaches the  
 25 true willingness to pay from below. 02: 58PM  
 0171  
 1 Q What do you mean from below? I don't  
 2 understand that term.  
 3 A It's a lower bound estimate of that true  
 4 willingness to pay.  
 5 Q By lower bound, you mean lower number? 02: 58PM  
 6 A I mean if you were to bound willingness to pay  
 7 from above or below, this bounds it from below.  
 8 Q Now, you didn't include a no-vote option in  
 9 your study design; correct?  
 10 A We did not explicitly include a no-vote. 02: 59PM  
 11 People could not vote for the program if they chose.  
 12 Q Why didn't you include a no-vote option?  
 13 A As we described specifically in the report, we  
 14 didn't think it was appropriate.  
 15 Q Why? 02: 59PM  
 16 A Let me get the report and tell you.  
 17 Q Okay.  
 18 A On Page 3-18 we go into a rather long  
 19 discussion about the no-vote panel -- no-vote  
 20 option, and starting out again it states the NOAA 03: 00PM  
 21 panel. The NOAA is the panel of economists and  
 22 survey researchers and psychologists that were  
 23 convened to evaluate specifically the question about  
 24 whether or not contingent valuation is an  
 25 appropriate measure -- appropriate tool to use to 03: 00PM  
 0172

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1 measure non-use values in this natural resource  
2 damage assessment framework.  
3 So they looked at all the options. They  
4 evaluated. They had public hearings. They  
5 deliberated, and they wrote a report on a number of 03: 00PM  
6 things one should consider when they undertake a  
7 contingent valuation study, and they are considered  
8 to be the best guidance we have available at that  
9 time and at this time, and the information they  
10 developed at that time was based on the research in 03: 00PM  
11 the field and the research that was done at that  
12 time, and to date nobody has updated those  
13 guidelines.  
14 So those are really the best guidelines that  
15 we have available. So they state to us, a no-answer 03: 01PM  
16 option should be explicitly allowed, and then we go  
17 on to explain and in particular this is a lot of  
18 work that some of our very own researchers have  
19 contributed to the academic literature on about  
20 whether or not a no vote is appropriate based on 03: 01PM  
21 information developed since the NOAA panel, and we  
22 came to the conclusion that the no vote wasn't here.  
23 Q And that's stated on Page 3-18, the reasons  
24 for why you came to that decision?  
25 A Yes. 03: 01PM  
0173  
1 Q If you had included a no-answer option, you  
2 would forego collecting valid votes; correct?  
3 A That's what we state here.  
4 Q Okay, and you risked having a number of no  
5 answers to your survey; correct? 03: 02PM  
6 A Yeah, we do have some no answers to the  
7 survey. There were a number of people who chose in  
8 essence to no vote by choosing not to vote.  
9 Q Okay, but you didn't give them this no-answer  
10 alternative as recommended by the NOAA panel? 03: 02PM  
11 A No, we did not.  
12 Q And if you had included that, what would that  
13 have done to your sample size? What if you had to  
14 survey more people?  
15 A Wow. I -- our -- our survey sample size I 03: 02PM  
16 don't believe would have changed because of this.  
17 Q Okay. Did you test that; did you look at that  
18 question?  
19 A The survey sample size is what it is, the  
20 number of responses we got back. 03: 03PM  
21 Q Would it make any difference if a number of  
22 those response were no-answer responses?  
23 MS. XIDIS: Objection to form.  
24 A Make any difference in what?  
25 Q In the validity of your survey. 03: 03PM  
0174  
1 A Can you read that back?  
2 (Whereupon, the court reporter read  
3 back the previous question.)  
4 A A number of what responses.  
5 Q Responses to your survey. 03: 03PM  
6 A We have a number of no responses in our  
7 survey.  
8 Q You don't have any no-answer responses. You  
9 recorded them as no votes; correct?  
10 A No. We have them as no votes. So there were 03: 03PM  
11 people who did not answer that question.

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EXHIBIT Q



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12 Q But you didn't give that as an option to them  
13 on the survey questions?

14 A No. As I explained to you, we didn't think  
15 that was appropriate.

03: 04PM

16 Q Okay, and my question is, if you had done that  
17 and you had had a lot of people answer no answer,  
18 what would that have done to the validity of your  
19 survey?

20 A I don't believe it would have done anything to  
21 the validity of the survey, but I'd have to go back  
22 and look, but I don't think it would do anything to  
23 the validity of the survey.

03: 04PM

24 Q You cite some literature in here about the  
25 no-answer option. In general does the economics

03: 04PM

0175 1 profession support the inclusion of a no-answer  
2 option?

3 MS. XIDIS: Objection to form.

4 A I think in general it's not a good reference  
5 because I don't know in general. The economics  
6 profession is a huge profession and has many  
7 different subcategories.

03: 04PM

8 Q Is there disagreement within the economics  
9 profession about whether or not to use a no-answer  
10 option?

03: 05PM

11 MS. XIDIS: Objection to form.

12 A I can't say whether every economist who does  
13 this work agrees with this or not.

14 Q I'm not asking you for every economist, but I  
15 am asking you whether you've reviewed the literature  
16 and whether there is disagreement in the literature  
17 you reviewed about whether or not to use a no-answer  
18 option.

03: 05PM

19 A That's what makes academic literature is to  
20 have disagreements.

03: 05PM

21 Q So there is?

22 A There's -- there's discussion about the  
23 effects of no option, and that's what these  
24 literature reviews review and come to the conclusion  
25 that in this scenario for this case, we didn't need

03: 05PM

0176 1 to add it.

2 Q Okay. Besides the citations listed on this  
3 page by Carson and Krosnick, can you refer me to any  
4 other publications that support your choice here?

5 A Let me see if we cited anything else here. In  
6 Krosnick is a literature review of all the  
7 literature so all of that literature is cited in  
8 Krosnick. So let me see if we cited anything  
9 specific besides that. It's a rather extensive  
10 literature review. So there's the Carson paper, the  
11 Krosnick.

03: 06PM

12 Q Those two were already cited by you?

13 A Right. I think those are the two we cited.  
14 So those are the main two right now. Dr. Krosnick  
15 wrote that section and is -- would be a good person  
16 to ask.

03: 07PM

17 Q And Dr. Krosnick wrote that section and cited  
18 Dr. Krosnick as support for the no-answer option  
19 conclude you reached?

20 MS. XIDIS: Objection.

03: 07PM

21 A He cited himself and Carson and others.

22 Q Okay, great. Now, in the CV survey, you led

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23 the respondents to believe that the water clarity  
24 should reflect 1960 conditions. Why did you choose  
25 1960 conditions? 03: 08PM

0177

1 MS. XIDIS: Objection to form.

2 A I'm not sure what we led them to believe. We  
3 provided information to them.

4 Q You told them that it would return water  
5 clarity to 1960 levels; correct? 03: 08PM

6 A The survey provided the information that it  
7 would return water clarity to about 1960 conditions.

8 Q And why did you pick 1960 conditions?

9 A As I said before, we talked to the natural  
10 scientists about what seemed to be a good reference  
11 point in water clarity, and that was the date that  
12 was determined as being reasonable and, again, Dr.  
13 Bishop specifically talked to the natural scientists  
14 about these dates. 03: 08PM

15 Q Why didn't you use a 1980 baseline to be  
16 consistent with CERCLA? 03: 09PM

17 MS. XIDIS: Objection to form.

18 A I don't understand the question.

19 Q Well, you implemented this CV study especially  
20 for this litigation; right? 03: 09PM

21 A Yes.

22 Q And CERCLA was enacted after 1960; correct?

23 A Yes.

24 Q The natural resource damages provision of  
25 CERCLA. So why didn't you use the 1980 date as the  
0178 03: 09PM

1 baseline date instead of the 1960 date?

2 A 1980 has nothing to do with the date of  
3 baseline.

4 Q What does 1960 have to do with it?

5 A It's the relative conditions that the  
6 environment would be in but for the changes. 03: 09PM

7 Q Why didn't you go to 1950?

8 A Because, again, in talking with the natural  
9 scientists, the date that seemed about right to  
10 present was 1960. Now, 1960, remember, is just an  
11 indication of what the environment should have  
12 looked like but for the release, but for the change  
13 in the environment, change in the quality of the  
14 environment. So we're just telling people -- giving  
15 them a reference point that things in the past used  
16 to look better. If we do something, we can get the  
17 environment back to those conditions where they used  
18 to look better. 03: 10PM

19 Q Do you know what the difference in water  
20 clarity was between 1960 and 1980? 03: 10PM

21 A I'm not a natural scientist. I haven't looked  
22 at the data. I can't tell you.

23 Q Did the natural scientists look at that? 03: 10PM

24 A You'd have to ask them.

25 Q Okay. So, again, you picked 1960 based on the  
0179 03: 10PM

1 recommendation of the natural scientists?

2 A We picked 1960 as a date in the past when  
3 things used to look better, that we could present to  
4 people that things used to look better, and if we do  
5 something, we can get the environment to look better  
6 and it would look better like in the past, like in  
7 about 1960. 03: 11PM

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8 Q Could you have picked 1962?  
9 A Yes.  
10 Q Would it have made any difference to the 03: 11PM  
11 results?  
12 A I don't believe so.  
13 MS. XIDIS: Objection to form.  
14 Q 1965?  
15 MS. XIDIS: Objection to form. 03: 11PM  
16 A I can't tell you because we didn't test that.  
17 Q Okay. So 1960 was an arbitrary date that you  
18 picked sometime in the past?  
19 MS. XIDIS: Objection to form.  
20 A Again, it's not arbitrary. We talked to the 03: 11PM  
21 natural scientists about what we were looking for.  
22 Q And what did you tell the natural scientists  
23 you were looking for?  
24 A Again, Dr. Bishop had most of these  
25 communications, but in some of the communications I 03: 12PM  
0180  
1 had with them, what we told them was we were trying  
2 to understand what the environment would have looked  
3 like without all these additional nutrients, and  
4 when in time -- because it's helpful for people to  
5 understand these things, when in time is a 03: 12PM  
6 reasonable time to have told people it sort of looks  
7 like that, and 1960 is what they provided us.  
8 Q Who did you say had those conversations with  
9 the natural scientists?  
10 A I had some; Dr. Bishop had some. Dr. Bishop 03: 12PM  
11 is really the key communicator with all of the  
12 natural scientists on our team.  
13 Q Okay. Which natural scientists did you and  
14 Dr. Bishop talk to?  
15 A I can't specifically tell you all the natural 03: 13PM  
16 scientists that Dr. Bishop talked to.  
17 Q Who did you talk to?  
18 A I talked to Dr. Cooke, Dr. Welch, Dr.  
19 Stevenson. One time I talked to Dr. Wells. Those  
20 are the people I remember talking to. I may have 03: 13PM  
21 talked to others, I think Dr. Fisher, and then also  
22 just to note, you know, this was a common discussion  
23 and topic in our focus groups about people that had  
24 been here for a long, long time. We had a number of  
25 people who had been in the region for a long, long 03: 13PM  
0181  
1 time, and we talked to them about what it looked  
2 like in the past.  
3 MR. DEIHL: Why don't we take a break for  
4 the tape change.  
5 VIDEOGRAPHER: We are now off the Record. 03: 14PM  
6 The time is 3:13 p.m.  
7 (Following a short recess at 3:13 p.m.,  
8 proceedings continued on the Record at 3:25 p.m.)  
9 VIDEOGRAPHER: We are back on the Record.  
10 The time is 3:25 p.m. 03: 25PM  
11 Q Mr. Chapman, how did you select the scope  
12 version for this study?  
13 A When you say we, how did I, you mean the team?  
14 Q Yes.  
15 A We identified a scenario that we felt 03: 25PM  
16 adequately described different size good to  
17 respondents and tested that out.  
18 Q Anything else?

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19 A Those were the main things, tested it, and as  
20 with everything, revised it, updated it as we went  
21 through the process. 03: 26PM

22 Q Is there any science to the selection of the  
23 proper scope?

24 MS. XIDIS: Objection to form.

25 A The scope comes from, again, one of the 03: 26PM

0182 1 guidelines we followed in the NOAA recommendation,  
2 which is to evaluate whether individuals are -- in  
3 the survey are responsive to different sizes or  
4 different descriptions of the environment, and there  
5 is no specific descriptions on what that scope  
6 should look like. 03: 27PM

7 Q When you say there's no specific descriptions  
8 about what that scope should look like, you mean  
9 specific descriptions in the literature?

10 A Every study that's done a scope test has done 03: 27PM  
11 a scope test specific to the scenario presented and  
12 the design developed, so there's no, quote unquote,  
13 one scope test.

14 Q Okay, and so for each study, the scope test is  
15 designed for that particular study? 03: 27PM

16 A Yes.

17 Q And that was true in this case as well?

18 A Yes. We convened and discussed and thought  
19 about appropriate scope studies or scope designs,  
20 and this is the one we did. 03: 28PM

21 Q Why did you decide to have only half of the  
22 sample size for the base versus scope versions?

23 A The scope is a test that we wanted to conduct  
24 to make sure we were following with NOAA guidance.  
25 The test is one of many things that we undertook 03: 29PM

0183 1 with the data. We knew that we were going to rely  
2 on the willingness to pay estimates from the main  
3 study, and in allocating resources between the main  
4 study and the scope study, we allocated  
5 approximately -- well, the number ended up being  
6 about twice as many people had the main study than  
7 the scope study by design. 03: 29PM

8 Q Is there any support in the literature,  
9 besides articles written by members of the team,  
10 which support this halving of the sample size? 03: 30PM

11 A There's no specific guidance or direction of  
12 what the sample size should be for any survey, for  
13 the main survey, for this survey, for any other  
14 survey. That's a function of what's trying to be  
15 described, what's being undertaken, and so there's  
16 actually no guidance anywhere on what the sample  
17 size is. What's determined is we evaluated what we  
18 were trying to do here at this case on this project  
19 and what we felt was appropriate sample size, and we  
20 allocated it for this project specifically this way. 03: 30PM

21 Q Who selected the photos that were used in the  
22 survey?

23 A As a team, we evaluated the photos. We tested  
24 different photos. We discussed with the focus group  
25 and one-on-one respondents the photos, and as a 03: 31PM

0184 1 team, we determined after all that evaluation what  
2 we thought were appropriate photos.

3 Q Did the attorneys have input into the

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4 selection of the photos?  
5 A No. 03: 32PM  
6 Q How did you determine that the photos used in  
7 the survey were representative of conditions in the  
8 1960s?  
9 A We looked at the photos ourselves to try and  
10 identify which ones seemed to represent what we were 03: 32PM  
11 presenting in the survey. We talked to the natural  
12 scientists about what they thought things would look  
13 like in the 1960s based on their knowledge of other  
14 rivers and lakes in Oklahoma and other places, and  
15 so we both looked at what we were trying to present 03: 32PM  
16 in the photos in our descriptions of what 1960 was  
17 like and what the natural scientists thought things  
18 would look like, and so we used that process to say  
19 that we thought these were good representations of  
20 what we were describing in the survey of what 1960 03: 32PM  
21 looked like.  
22 Q Did you try to use any photos of the water  
23 bodies from the 1960s?  
24 A I don't know if I ever saw any photos of the  
25 water bodies from the 1960s. So I personally am not 03: 33PM  
0185 aware that we actually looked at 1960s photos.  
2 Q Why didn't you try to find photos from the  
3 1960s?  
4 A Because we had photos from this period, and we  
5 needed to have photos that were similar in design 03: 33PM  
6 and color and aspect and lighting and a number of  
7 different attributes that are important in making  
8 sure the photos are accurately representing what we  
9 wanted them to do, and so photos from 1960 would  
10 look completely different and would be creating a 03: 33PM  
11 whole different set of reactions in the respondents  
12 than what we were trying to do.  
13 Q After you conducted Field Pretest No. 1, you  
14 reverted back to focus groups. Why did you do that?  
15 A Let me look at the report and see what we 03: 34PM  
16 said. Time to drink your soda. So you're talking  
17 about the field pretest that happened on January  
18 14th?  
19 Q I don't recall the date. If you direct me to  
20 a page, it was your first field pretest. 03: 36PM  
21 A The first pretesting we did was January 14th,  
22 2008. It's on Page 3-6.  
23 Q Yes.  
24 A So after January 14th we had one, two, three,  
25 four, five, six focus groups, and we were testing 03: 36PM  
0186 out various changes in the survey, presentations of  
1 information. I think in that we were also testing  
2 moving from, if I'm not mistaken, moving from the  
3 five-year back to the one-year bid, things like  
4 that, just refining and honing the instrument. We 03: 37PM  
5 hadn't had any common data across everything to test  
6 until we did this first pretest, and that's what  
7 that was for.  
8 Q What was the purpose of the focus groups?  
9 A As I just said, to refine and hone the 03: 37PM  
10 information to look at the test out, probably test  
11 out additional bid designs. You know, the whole  
12 team was involved in all of this, looking at the  
13 different aspects of all components of it. So we  
14

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EXHIBIT Q

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15 were just testing out and refining the instrument. 03: 37PM  
 16 Q Besides testing out additional bid designs,  
 17 what other areas of the questionnaire needed further  
 18 refinement?  
 19 A I'd have to go back and look. I mean, one of  
 20 the reasons we kept every version of the instrument 03: 38PM  
 21 that we tested was so that was our record of being  
 22 able to go back and look at each one of the  
 23 instruments and look between one to the other, and  
 24 that's what we looked at and used to answer our  
 25 questions, what did we change between here and 03: 38PM  
 0187  
 1 there, and I'd have to do that again here to go back  
 2 specifically to say what did we change from this  
 3 date to that date.  
 4 Q One of the things that you said you went back  
 5 to was you changed from a five-year tax to a 03: 38PM  
 6 one-year tax.  
 7 A At some point in here. It might have been  
 8 after the first one. I'm not sure. Again, we'd  
 9 have to go back. That's why we kept all those  
 10 records. 03: 38PM  
 11 Q Did you find that fewer people would vote for  
 12 a program that had the same tax for five years  
 13 relative to one year?  
 14 A I don't think we ever tested the same tax for  
 15 five years versus the tax for one year. 03: 39PM  
 16 Q Would it be reasonable to expect that fewer  
 17 people would vote for a five-year tax as opposed to  
 18 a one-year tax?  
 19 MS. XIDIS: Objection to form.  
 20 A You'd have to be more specific for me to make  
 21 a decision about that. 03: 39PM  
 22 Q Okay, but you looked at both a five-year tax  
 23 and a one-year tax; correct? Why did you ultimately  
 24 conclude to go with the one-year?  
 25 A There were a number of factors that came into  
 0188  
 1 play. Not -- one was that in a five-year tax, we  
 2 would have to make some decision about how to add up  
 3 those five years over time, and we just wanted to  
 4 limit the number of decisions like that we had to  
 5 do. So that was one of the reasons. 03: 40PM  
 6 Q Any other reasons?  
 7 A That's the main one that comes to my mind  
 8 about why we were doing it. I think other members  
 9 of the team might have other reasons why they were  
 10 in favor of a one-year tax. 03: 40PM  
 11 Q In your survey results about 40 percent of the  
 12 respondents said they voted for the alum program  
 13 because the dollars would be used to clean up other  
 14 rivers and lakes in Oklahoma in addition to the  
 15 Illinois River and Tenkiller Lake; is that correct? 03: 41PM  
 16 A I'd have to look at the results.  
 17 Q Okay.  
 18 A I have the marginals for that. They should  
 19 be -- sorry. Right in front. So Q-33, is that the  
 20 question you're asking about? 03: 42PM  
 21 Q Yes.  
 22 A So on Page D-14, we present the response that  
 23 cross tabs on that, and for the -- did you ask for  
 24 the base or the scope?  
 25 Q The base. 03: 43PM



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0189

1 A The responses were -- would be used for other  
2 rivers and lakes 41.2 percent; would be used only in  
3 Tenkiller Lake and Illinois River and creeks flowing  
4 into them 56.6 percent; don't know, refused 2.2  
5 percent.

03: 43PM

6 Q So those 40 percent of the respondents who  
7 thought the money would be used for other lakes were  
8 valuing a larger commodity than you intended;  
9 correct?

10 MS. XIDIS: Objection to form.

03: 43PM

11 A I can't say that that's exactly what they were  
12 doing. I can say that they answered this question  
13 this way. What I don't know is what percentage of  
14 these people didn't vote for the program. This just  
15 says of the -- when you answered -- when you decided  
16 how to vote, it's not -- these weren't people that  
17 were necessarily voting for the program. All of  
18 these people could have voted against the program.

03: 44PM

19 Q Those people in that 40 percent who voted for  
20 the program were valuing a larger commodity than you  
21 intended; right?

03: 45PM

22 A They didn't --

23 MS. XIDIS: Objection to form.

24 A I don't know if they valued the commodity at  
25 all. They chose not to pay for whatever they were

03: 45PM

0190

1 thinking about.

2 Q But some of those people did choose to pay for  
3 the program; correct?

4 A I don't know that.

5 Q You could figure that out; correct?

03: 45PM

6 A I'd have to go back to the data to look at  
7 that, yes.

8 Q Okay, and it would be reasonable to conclude  
9 that some of those respondents did vote to pay for  
10 the program; right?

03: 45PM

11 MS. XIDIS: Objection to form.

12 A I couldn't say whether that's reasonable or  
13 not.

14 Q Okay. So sitting here, you would not be  
15 willing to conclude that at least some of that 40  
16 percent voted for the program?

03: 45PM

17 A I'd say I'd like to look at the data. I'd  
18 like to -- rather than draw speculative conclusions  
19 about it, I'd rather look at the data.

20 Q Okay. What data would you need to look at?

03: 45PM

21 A I'd need to look at the data we provided, the  
22 dataset.

23 Q Have you looked at that?

24 A Many, many times.

25 Q Okay. Can you sit here and tell me what

03: 45PM

0191

1 percentage of the 40 percent voted for the program?

2 A I cannot tell you what percentage of that, no.

3 Q Okay. For those people who thought that they  
4 were buying a larger commodity than you intended, in  
5 other words, who thought that the tax dollars were  
6 being used to clean up other rivers and lakes in  
7 addition to the Illinois River and Tenkiller Lake,  
8 did you eliminate those votes from your analysis?

03: 46PM

9 A Again, I can't tell you how these people  
10 voted. I can tell you in general the approach that

03: 46PM

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EXHIBIT Q

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11 we undertook was that as people voted, we provided  
12 them information and we believed their answers, and  
13 so if someone chose to vote, however they voted,  
14 whether it was for the program or not for the  
15 program, we didn't ad hoc throw people out. 03: 47PM

16 Q So you did not try to determine if any  
17 respondents voted for the program and thought that  
18 they were paying for a larger commodity than just  
19 Tenkiller Lake and the Illinois River?

20 MS. XIDIS: Objection to form. 03: 47PM

21 A I personally didn't do that.

22 Q And, therefore, you didn't eliminate those  
23 votes from your analysis; right?

24 A Again, we didn't eliminate votes from our  
25 analysis anywhere. So I personally did not do that, 03: 47PM

0192

1 no.

2 Q If an individual thought he was buying more  
3 than you intended, doesn't that bias the results  
4 upward?

5 MS. XIDIS: Objection to form. 03: 47PM

6 A I'd have to think about that some more but I  
7 can't say that it would right now.

8 Q Well, if you believed the economic concept  
9 behind the scope test, then fewer people would have  
10 voted for the program had they really understood 03: 48PM  
11 that the cost was uniquely tied to just the Illinois  
12 River; right?

13 MS. XIDIS: Objection to form.

14 A I'm sorry, are we talking about the scope test  
15 now? I'm not following. I'm sorry. 03: 48PM

16 Q Yeah. Let's talk about the scope test.

17 A Okay.

18 Q If someone had voted for the program -- strike  
19 that. Again, we're back to this question that you  
20 identified. If someone said they voted for the alum 03: 48PM  
21 program because they thought it was cleaning up  
22 other rivers and lakes and they had really

23 understood that the cost was only for the Illinois  
24 River and Tenkiller Lake, they would not have bid as  
25 much; correct? 03: 49PM

0193

1 MS. XIDIS: Objection to form.

2 A I don't follow the question. If you want to  
3 reask it, that's fine.

4 (Whereupon, the court reporter read  
5 back the previous question.) 03: 49PM

6 A No.

7 Q When you estimated your Logit model, didn't  
8 you get a positive coefficient on whether people  
9 thought it was cleaning up other lakes and rivers? 03: 50PM

10 A The Logit model?

11 Q Logit model, yes.

12 A We estimated multiple Logit models in the  
13 report. Can you define which one?

14 Q No. I'm asking you. You estimated a Logit  
15 model. Didn't you get a positive coefficient on 03: 50PM  
16 whether people thought it was cleaning up other  
17 rivers and lakes?

18 A Let me look and see the results.

19 MS. XIDIS: Object to form.

20 Q What page are you looking at? 03: 50PM

21 A Right now I'm looking at Page 6-29.

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22 Q Take a look at Page 6-28.  
 23 A Okay. Just a second and I will. I'd also  
 24 like to see Appendix G, if you could.  
 25 Q Why don't you take a look at Page 6-28 and 03: 53PM  
 0194  
 1 6-29, please?  
 2 A Okay.  
 3 Q If you look at the third bullet on Page  
 4 6-28 --  
 5 A Uh-huh.  
 6 Q -- it says tax would be used to clean other  
 7 rivers/lakes; do you see that?  
 8 A Yes.  
 9 Q And it states, believing that the tax funds  
 10 would be used to clean up other rivers and lakes in 03: 53PM  
 11 Oklahoma in addition to Tenkiller Lake, the Illinois  
 12 River and other creeks flowing into it was  
 13 associated with increased voting for the program.  
 14 Do you see that?  
 15 A Yes. 03: 54PM  
 16 Q And then on the chart on the following Page  
 17 6-29, tax would be used to clean other rivers/lakes.  
 18 There's a positive significant influence. Do you  
 19 see that?  
 20 A Significant, how are you measuring 03: 54PM  
 21 significance?  
 22 Q It's 2.09 under the column labeled T. Do you  
 23 see that?  
 24 A Yes.  
 25 Q And that would be significant, would it not? 03: 54PM  
 0195  
 1 A Depending on your selection criteria of  
 2 significance, yes. Actually that's why I wanted to  
 3 see Appendix G is because we investigated what the  
 4 effect would be on our overall results, and that's  
 5 presented in Appendix G, and without that, I can't 03: 55PM  
 6 discuss what would that mean actually.  
 7 Q These 40 percent of the respondents who said  
 8 they voted for the alum program because the tax  
 9 dollars would be used to clean up other rivers and  
 10 lakes in addition to the Illinois River and 03: 55PM  
 11 Tenkiller Lake, doesn't that indicate that those  
 12 respondents, at least, failed to comprehend the  
 13 scenario you were putting in front of them?  
 14 MS. XIDIS: Objection to form.  
 15 A No. 03: 56PM  
 16 Q Why not?  
 17 A Because these people clearly believed that the  
 18 alum treatments would be effective and work.  
 19 Q How do you know that?  
 20 A They're believing they will be done other 03: 56PM  
 21 places, not only here also looks like. So they're  
 22 believing the program is possible and effective, and  
 23 so I think it shows lots of scenario acceptance.  
 24 Q But they're believing that the tax is going to  
 25 fund the cleanup of additional rivers in addition to 03: 56PM  
 0196  
 1 Tenkiller Lake and the Illinois River; right?  
 2 A Yes.  
 3 Q And so they're believing that they're buying  
 4 more with their tax than you intended them to buy  
 5 with their tax; correct? 03: 56PM  
 6 MS. XIDIS: Objection to form.

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7 A Again, I don't know how these people voted,  
8 whether they voted for or against the program.  
9 Q But it does show that these people, regardless  
10 of whether they voted for or against the program, 03: 57PM  
11 didn't understand what you intended them to  
12 understand in connection with the survey?  
13 MS. XIDIS: Objection to form.  
14 A Again, the survey presented information. I  
15 believe this shows they understood a lot of the 03: 57PM  
16 information.  
17 Q You wanted them to think that the tax was  
18 going to clean up Tenkiller Lake and the Illinois  
19 River, and they ended up thinking that the tax was  
20 going to be used to clean up a number of other 03: 57PM  
21 lakes; right?  
22 MS. XIDIS: Objection to form.  
23 A I wanted to present them information for them  
24 to make up their own minds about that information.  
25 I actually had no preference for them to vote one 03: 57PM  
0197 way or the other.  
2 Q In any event, you didn't eliminate those votes  
3 from your analysis; correct?  
4 A Again, we did not -- we -- we undertook a  
5 sensitivity analysis to assess the effectiveness, 03: 58PM  
6 and that's in Appendix G, but I -- we did not  
7 eliminate people.  
8 Q In your analysis were there some respondents  
9 who were identified who didn't understand according  
10 to interviewer evaluation forms? 03: 58PM  
11 A I'd have to go back and look at the specific  
12 questions about how we defined didn't understand,  
13 but I'm happy to do that to tell you what the  
14 questions were specifically.  
15 Q Okay. Did you make some effort to exclude 03: 58PM  
16 from your analysis respondents who didn't understand  
17 the questions?  
18 A Again, we asked people questions. We gave  
19 them opportunity to make decisions. They made  
20 choices. We take those choices as their choices, 03: 59PM  
21 just like we do in all other data, whether it's  
22 buying a car, buying a variable rate mortgage,  
23 anything. We take that information with those  
24 choices people make and their understandings about  
25 it and make those decisions. Those are valid 03: 59PM  
0198 choices.  
2 Q Again, my question was, did you eliminate from  
3 your analysis respondents who didn't understand the  
4 questions?  
5 MS. XIDIS: Objection, asked and answered. 03: 59PM  
6 MR. DEIHL: He hasn't answered.  
7 A We did not eliminate ad hoc any individuals  
8 from the survey.  
9 Q Okay. Thank you. Even people who were drunk  
10 during the survey? 04: 00PM  
11 MS. XIDIS: Objection to form.  
12 A I have no indications if anyone was drunk  
13 during the survey.  
14 Q You didn't eliminate people who the  
15 interviewer stated was drunk during the survey, did  
16 you? 04: 00PM  
17 A Again --

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18 MS. XIDIS: Objection.  
 19 A -- we did not ad hoc eliminate any individuals  
 20 from the survey. 04: 00PM  
 21 Q Was the respondent that the interviewer said,  
 22 quote, he watched football all the time included in  
 23 your survey or did you eliminate him?  
 24 A Again, we did not eliminate anyone ad hoc from  
 25 the survey. There's no reason to believe that 04: 00PM  
 0199  
 1 people who are also watching football can't  
 2 understand and comprehend the information being  
 3 provided to them.  
 4 Q Mr. Chapman, I've handed you what's been  
 5 marked for identification as Deposition Exhibit 14,  
 6 which I believe is a copy of Stratus Natural 04: 02PM  
 7 Resource Damages Associated With Past Aesthetics and  
 8 Ecosystem Injuries. Do you have that in front of  
 9 you?  
 10 A I have multiple copies that I'm trying to get 04: 02PM  
 11 to just one copy of it.  
 12 MS. XIDIS: And I believe it's Exhibit 13;  
 13 is that correct?  
 14 A I believe I'm down to one copy now. I'm  
 15 sorry. Can you repeat the question? 04: 03PM  
 16 Q Do you have your exhibit in front of you?  
 17 A Exhibit 13?  
 18 Q Yes. You're an author of this report?  
 19 A I'm one of the co-authors, yes.  
 20 Q Okay. Are there specific portions of this 04: 03PM  
 21 report that you drafted as opposed to Dr. Chapman or  
 22 Dr. Hanemann?  
 23 A I am Mr. Chapman.  
 24 Q I'm sorry, Dr. Bishop and Dr. Hanemann.  
 25 A Yes. 04: 03PM  
 0200  
 1 Q Which portions of this report did you draft?  
 2 A I took the initial cut on the introduction and  
 3 the conceptual approach, parts of the estimating  
 4 past damages section, parts of the section called  
 5 estimate of past damages and parts of the evaluation 04: 05PM  
 6 of benefits transfer.  
 7 Q Okay. Which parts of the section labeled  
 8 estimating past damages beginning on Page 2 did you  
 9 draft?  
 10 A Again, this report, like the other reports, 04: 05PM  
 11 follow the same common approach, which was someone  
 12 would take a first draft, put together a first draft  
 13 of it, section, and others would add to and edit and  
 14 revise. So in the first paragraph, I know I started  
 15 that out. The fourth and fifth Dr. Bishop took a 04: 06PM  
 16 first cut at. The fifth I had some on with Dr.  
 17 Hanemann. This was a report we wrote together, so  
 18 it's very hard to draw out specific sections that  
 19 only one individual wrote.  
 20 Q So this was the same iterative process you 04: 06PM  
 21 described for the other report where one of you  
 22 prepared a first draft and others of you changed  
 23 that draft and worked on it together on the  
 24 computer?  
 25 A Actually this one, we worked on it on the 04: 06PM  
 0201  
 1 computer much more concurrently all at once because  
 2 this came after the main report and we were all

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3 working on this concurrently.  
 4 Q Are you prepared to testify at trial about all  
 5 of the conclusions in this report? 04: 07PM  
 6 A Yes.  
 7 Q Have you discussed with the attorneys the  
 8 opinions that you will testify to at trial drawn  
 9 from this past damages report?  
 10 A No. 04: 08PM  
 11 Q So sitting here today, you don't know what  
 12 opinions you will be asked upon to testify to at  
 13 trial regarding this past damages report?  
 14 MS. XIDIS: Objection to form.  
 15 A Again, I don't know if they're going to ask me  
 16 to testify at all or what specifically they want me  
 17 to testify to. I'm prepared to testify to all  
 18 aspects of this report if asked. 04: 08PM  
 19 Q This past damages report states that it uses  
 20 the benefits transfer approach; is that correct? 04: 08PM  
 21 A One of the most commonly used approaches.  
 22 Q Could you describe how that benefits transfer  
 23 was performed?  
 24 A We took the estimate -- in this case this  
 25 benefits transfer was especially straightforward. 04: 08PM  
 0202  
 1 We had a primary study that was specific to the  
 2 issues we wanted to address, and all we really  
 3 needed to do was to transfer to a different time  
 4 frame for the same types of injuries, the same  
 5 general population, the same general attributes, and  
 6 so this was an especially straightforward one, much  
 7 less complicated than many of the ones that are done  
 8 in the literature, and so the main estimates, we're  
 9 looking at how would we adjust for any potential  
 10 changes in income or the relative levels of the  
 11 injury during the different time periods or the  
 12 relative time periods, all standard things that one  
 13 should check in a benefits transfer. 04: 09PM  
 14 Q Can you direct me to any scholarly literature  
 15 where someone has transferred damages from the  
 16 present time to a past time, such as was done in  
 17 this report? 04: 10PM  
 18 A I would have to get out the books on the  
 19 damage assessments done for recreational fishing  
 20 studies. Every one of those has transferred damages  
 21 from the present to the past. So there's numerous  
 22 examples in the literature of transferring benefits  
 23 from the present to the past. 04: 10PM  
 24 Q Do you cite any of those in your report?  
 25 A We don't specifically cite those. We cite the  
 0203  
 1 US EPA guidance. US EPA undertook probably one of  
 2 the most extensive past damage calculations  
 3 undertaken in an evaluation of The Clean Air Act.  
 4 They did one of the most comprehensive benefits  
 5 transfers, had it evaluated by numerous economic  
 6 scholars, and was well accepted. 04: 11PM  
 7 Q You didn't cite that in your report?  
 8 A I guess most anybody who does benefit transfer  
 9 knows of these.  
 10 Q Okay. So sitting here today, you can't tell  
 11 me about any peer-reviewed literature where someone  
 12 has transferred damages from the present time to a  
 13 past time period? 04: 11PM



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14 A I know --  
 15 MS. XIDIS: Object to form. 04: 11PM  
 16 A -- there's a study that's been done talking  
 17 about current and past damages for the Clark Fork.  
 18 There's recreational studies by Dr. Breffle about  
 19 Clark Fork, Dr. Breffle and Morey at Clark Fork.  
 20 There's references for studies at the Fox River, 04: 12PM  
 21 Green Bay recreational studies in Wisconsin. All of  
 22 those studies are transferring from the current  
 23 study period to the past.  
 24 Q And that's in peer-reviewed literature, those  
 25 studies? 04: 12PM  
 0204  
 1 A Yes.  
 2 Q Okay. You would agree with me, would you not,  
 3 that most benefits transfer literature involves the  
 4 transfer of damages from one site to another?  
 5 MS. XIDIS: Objection to form. 04: 12PM  
 6 A I don't know every benefits transfer that's  
 7 been done, so I can't tell you whether it's most or  
 8 not.  
 9 Q Can you describe for me the assumptions that  
 10 you made in the past damages report in order to go 04: 13PM  
 11 back to 1981?  
 12 MS. XIDIS: Objection to form.  
 13 A The assumptions I made? Can you be a little  
 14 more specific?  
 15 Q What assumptions were made in your report that 04: 13PM  
 16 allowed you to go back to 1981?  
 17 MS. XIDIS: Same objection.  
 18 A The main assumptions were looking at the rate  
 19 at which individuals discount time, and we didn't  
 20 have specific information on that. We had a range, 04: 15PM  
 21 and so we actually did a sensitivity analysis on  
 22 that range, and the other assumption we had in here  
 23 or another assumption we had in here was the  
 24 relevant compound interest rate that could be  
 25 applied and, again, we didn't have a specific number 04: 15PM  
 0205  
 1 there, so we presented a range and showed a  
 2 sensitivity analysis with the effect of our  
 3 decisions on that range.  
 4 Q Didn't you also assume that the relationship  
 5 between phosphorus loading from the application of 04: 15PM  
 6 poultry in 1981 and water quality were the same as  
 7 they are today?  
 8 MS. XIDIS: Objection to form.  
 9 A Could you repeat? I'm sorry.  
 10 Q Didn't you also implicitly assume that the 04: 16PM  
 11 relationship between phosphorus loadings from the  
 12 application of poultry litter in 1981 were the same  
 13 as they are today?  
 14 A No.  
 15 Q Why not? 04: 16PM  
 16 A We assumed that the injuries -- we didn't  
 17 assume. We evaluated whether or not the overall  
 18 injuries during that time period would have been  
 19 similar.  
 20 Q How did you do that? 04: 16PM  
 21 A As we described in the report, we talked to  
 22 the natural scientists. We had them work with us to  
 23 develop whether or not the average injury levels as  
 24 we described during those different time periods

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25 were similar or not, and as we presented here, on 04: 16PM  
0206  
1 average over those two different time periods, they  
2 were very similar.  
3 Q So the -- did you do anything to verify that  
4 the baseline water quality was the same in 1981 as  
5 it is currently? 04: 17PM  
6 A The baseline water quality is the quality of  
7 the environment that would have existed without the  
8 releases, and that would be similar to now.  
9 Q And what did you base that on?  
10 A That the overall level of the environment 04: 17PM  
11 without those releases would be similar, talking to  
12 the natural scientists.  
13 Q Okay. So you based it on conversations with  
14 the natural scientists?  
15 A Yeah. 04: 17PM  
16 Q Okay. Did you do anything to verify that the  
17 poultry industry hasn't changed since 1981?  
18 MS. XIDIS: Objection to form.  
19 A I'm -- specifically for this, whether the  
20 poultry industry changed over that time period, I've 04: 18PM  
21 seen graphs that have shown -- we discussed how  
22 things have changed in our main survey. So we had a  
23 fair amount of information that showed how the  
24 poultry industry has changed over that time.  
25 Q And did you take that into account in this 04: 18PM  
0207  
1 benefits transfer?  
2 A This transfer is about the total amount of  
3 changes in the environment from all sources.  
4 Q So did you take into account the fact that the  
5 poultry industry has changed since 1981 in your 04: 18PM  
6 benefits transfer?  
7 A To the degree that it's fed into the changes  
8 in the environment we talked to the natural  
9 scientists about, then, yes.  
10 Q Okay, but you assumed that the injuries were 04: 19PM  
11 the same; correct?  
12 A We present the discussion that we talked about  
13 here that from talking to the natural scientists,  
14 the injuries on average were about the same. Some  
15 years they could have been higher, some years they 04: 19PM  
16 could have been lower as we described here, but on  
17 average they're about the same.  
18 Q And that's based on these conversations with  
19 the natural scientists?  
20 A Yes. 04: 19PM  
21 Q What can you tell me about the accuracy of  
22 benefits transfers like this study; are they as  
23 accurate as the original studies?  
24 MS. XIDIS: Objection to form.  
25 A The accuracy of a benefits transfer study 04: 19PM  
0208  
1 depends on a number of things, how close the  
2 original study is in design to what you are really  
3 trying to measure, how close the population is from  
4 the original study to what you are trying to  
5 measure, how close in geographic space the original 04: 20PM  
6 study is to what you're trying to measure and how  
7 close the description of the injury is between what  
8 you are trying to measure in the original study and  
9 what you're transferring to. Those are the main

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10 drivers that we actually described in the back on 04: 20PM  
 11 evaluation of sensitivity benefits analysis, and in  
 12 all of those indications, we are much more closely  
 13 aligned in this specific study than the majority of  
 14 studies out in the benefits transfer literature.  
 15 All of the accuracies in the benefits transfer 04: 21PM  
 16 literature, the majority of them, talk about trying  
 17 to fix for all these problems that we didn't have  
 18 here.  
 19 Q My question was whether or not the benefits  
 20 transfer study is as accurate as the original 04: 21PM  
 21 studies.  
 22 A In this case I think the main study is  
 23 probably a little more accurate than the benefits  
 24 transfer.  
 25 Q And why is that? 04: 22PM  
 0209  
 1 A Because we have these decisions to make about  
 2 interest rates, rates of return that we don't have  
 3 exact numbers for and so we chose a number. We  
 4 provide some sensitivity analysis about how that  
 5 number could be affected and affect the results. So 04: 22PM  
 6 I think there's a little more variation here.  
 7 Q And if there are any errors in the original  
 8 studies, those will be reflected in the past damages  
 9 study as well; correct?  
 10 MS. XIDIS: Objection to form. 04: 22PM  
 11 A It depends on what those are and whether or  
 12 not they would affect the past damage study.  
 13 Q Well, you're taking the past damage study and  
 14 reflecting it back, or excuse me, you're taking the  
 15 original study and reflecting it back into the past; 04: 22PM  
 16 correct?  
 17 A Yes.  
 18 Q So if there's anything wrong with the original  
 19 study in terms of methodology, et cetera, that will  
 20 be reflected back into the past in this past damage 04: 23PM  
 21 study; correct?  
 22 MS. XIDIS: Objection to form.  
 23 A One would have to look at what you would  
 24 consider to be wrong in the past damage study, how  
 25 that would affect the estimates from the past damage 04: 23PM  
 0210  
 1 study and whether or not it would affect the  
 2 willingness to pay estimates from the past damage  
 3 study. If in fact that there was a different number  
 4 we wanted to apply to that study, we could transfer  
 5 it pretty straightforward here. 04: 23PM  
 6 Q What percentage of your past damage claim is  
 7 based on compounded interest?  
 8 A We present actually alternatives. Whether one  
 9 has compounded interest included or not, we present  
 10 that information. If one doesn't put compounding 04: 25PM  
 11 interest in, we provide the number. If one does, it  
 12 depends then on what the appropriate interest rate  
 13 is for compounding, and we present a table for those  
 14 alternative numbers. So we don't present a number  
 15 that has just a specific past damage amount. It 04: 25PM  
 16 depends on whether or not one wants to include  
 17 compounding of past damages or not.  
 18 Q Are you prepared to testify at trial as to  
 19 what the damage figure is for past injuries to the  
 20 Oklahoma river system? 04: 25PM

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21 A Yes.  
 22 Q What number is it?  
 23 A The number that I would put forth is it's at  
 24 least \$126,327,031, and depending on whether or not  
 25 one wants to add in compounding interest, my best 04: 26PM  
 0211  
 1 estimate would be you would add 235 million dollars  
 2 to that.  
 3 Q Is the decision to add in compound interest a  
 4 legal decision or an economic decision in your  
 5 opinion? 04: 26PM  
 6 MS. XIDIS: Objection to form.  
 7 A I can't make a call about a legal decision. I  
 8 think that the compounding interest should be  
 9 included.  
 10 Q Can you direct me to any economic literature 04: 26PM  
 11 that supports a decision to include compound  
 12 interest?  
 13 A Most every one of the studies published on a  
 14 natural resource damage assessment that talks about  
 15 economic valuation of those resources includes 04: 26PM  
 16 compound interest.  
 17 MR. DEIHL: I think we're out of time on  
 18 the tape. Let's change the tape.  
 19 VIDEOGRAPHER: We are now off the Record.  
 20 The time is 4:26 p.m. 04: 27PM  
 21 (Following a short recess at 4:26 p.m.,  
 22 proceedings continued on the Record at 4:38 p.m.)  
 23 VIDEOGRAPHER: We are back on the Record.  
 24 The time is 4:38 p.m.  
 25 Q Mr. Chapman, before we went off the Record, we 04: 38PM  
 0212  
 1 were talking about including compounded interest in  
 2 your past damages assessment, and you indicated  
 3 that, quote, most of the literature included  
 4 compounded interest. Can you cite me to just one  
 5 specific article that talked about the propriety of 04: 38PM  
 6 including compounded interest in the past damages  
 7 assessment?  
 8 A First of all, the propriety of including  
 9 compounded past interest is from the federal  
 10 regulations. The federal regulations state the use 04: 39PM  
 11 of compounding of past interest, not only the  
 12 natural resource damage assessments but the general  
 13 O and B guidance on conducting economic analysis  
 14 talk about this. So that's the foundation for doing  
 15 this and state that it should be done. If you're 04: 39PM  
 16 doing it correctly, it should be included.  
 17 Q Okay. You said it was the federal  
 18 regulations. What federal regulation provision?  
 19 A Both the Oil Pollution Act and the natural  
 20 resources damages provision -- not the Oil Pollution 04: 39PM  
 21 Act, the regulations under the Oil Pollution Act and  
 22 the provisions under the CERCLA DOI regulations and  
 23 O and B Circular A-94 I think it is.  
 24 Q And is that what you are relying on for  
 25 including compounded interest in this past damages 04: 40PM  
 0213  
 1 assessment?  
 2 A Again, we present alternative scenarios about  
 3 whether compounded interest is or is not included,  
 4 and we state and cite that under the regulations of  
 5 natural resource damage assessment, it's accepted 04: 40PM

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6 and appropriate, and we say if that's included,  
7 here's the number. If it's not included, here's the  
8 other number.

9 Q Setting aside these regulations that you're  
10 referring to, can you direct me to any specific 04: 40PM  
11 economic literature that would support including  
12 compounded interest?

13 A As I sit here today, I can't think of the  
14 names of studies that have specifically discussed  
15 compounding interest in this arena. I know I've 04: 40PM  
16 read them. I can't specifically remember which  
17 ones.

18 Q And they're not cited in your references;  
19 correct?

20 A No. We just cite the regulations that discuss 04: 41PM  
21 the use of this.

22 Q Directing your attention back to Deposition  
23 Exhibit 10, which is your main report, can you tell  
24 me what percent of the respondents in that study do  
25 not pay any state income taxes to the State of 04: 41PM  
0214

1 Oklahoma?

2 A That appendix -- we might have it in here, but  
3 it's appendix -- the marginals, that's the one. I  
4 think the answer really comes from Exhibit 12. The  
5 question is, did anyone in your household pay 04: 42PM  
6 Oklahoma State income taxes in 2007, and then we  
7 list a bunch of ways, and under the base instrument,  
8 19.2 percent of the people said, no, in 2007 they  
9 did not pay income taxes.

10 Q What page are you referring to? 04: 43PM  
11 A D-20.

12 Q If you'll look at the following page, D-50,  
13 there's another question about income tax; correct?

14 A Yes.

15 Q And that indicated that in the base, 20 04: 43PM  
16 percent of respondents got a refund of all the money  
17 that they had paid in state income tax; correct?

18 A Yes, that's what that says. They paid taxes  
19 but they got their money back.

20 Q So somewhere around 20 percent of the 04: 44PM  
21 respondents did not pay state income taxes, correct,  
22 according to Exhibit D, or I'm sorry, Exhibit 12,  
23 Appendix D?

24 A No.

25 Q Okay. 04: 44PM  
0215

1 A I'm sorry. What was the number you used?

2 Q I said somewhere around 20 percent.

3 A 19.2 percent didn't pay in 2007.

4 Q Okay, and if you turn to your report and look  
5 on Page 6-19, do you have that in front of you? 04: 45PM  
6 A Yes.

7 Q And on Page 6-19 in the middle of the page you  
8 state, 35.4 percent of respondents did not pay 2007  
9 taxes or were refunded all the taxes they paid. Do  
10 you see that? 04: 45PM  
11 A Uh-huh, I see that.

12 Q And that's an accurate statement, isn't it?

13 A I'm just checking to see if these add up to  
14 what I think they do. Here's the issue, which is  
15 the percentages in these are based on all -- I'd 04: 46PM  
16 have to check something here. These are percentages

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17 based on the weights when they're applied to all the  
 18 respondents, and Q- 48 -- so I would have to go back  
 19 and check to see because what I have now is 19.2  
 20 percent, and 20 is 39. So I'd need to go back and  
 21 check to see if the weighting is the difference. 04: 47PM  
 22 Q So just so I understand what we're doing right  
 23 now, are you questioning the statement in your  
 24 report that states 35.4 percent of respondents  
 25 either did not pay 2007 taxes or were refunded all 04: 48PM  
 0216 the taxes they paid?  
 2 A No. I'm just saying I need to confirm that  
 3 that's what I think it is, which is the weighted  
 4 number. I'm not questioning that number, no.  
 5 Q So that's an accurate statement? 04: 48PM  
 6 A Yes, I believe so.  
 7 Q Okay. So 35.4 percent of the respondents  
 8 didn't pay any state income taxes in 2007?  
 9 A No, that's not what it says.  
 10 Q They either didn't pay any state income taxes 04: 48PM  
 11 or were refunded all the taxes they paid?  
 12 A Yes.  
 13 Q That amounts to the same thing; correct?  
 14 A No.  
 15 Q Okay. For those people who didn't pay any 04: 48PM  
 16 Oklahoma State income taxes, how could a payment be  
 17 anything other than hypothetical in your survey when  
 18 you were asking them a bid number for payment of  
 19 income taxes?  
 20 MS. XIDIS: Objection to form. 04: 49PM  
 21 A You'd have to reask the question. I don't  
 22 understand it.  
 23 Q You asked respondents to vote yes or no for  
 24 paying increased state income taxes to clean up  
 25 Tenkiller Lake and the Illinois River, and 35 04: 49PM  
 0217 percent of your respondents didn't pay state income  
 2 taxes or had the state income taxes refunded.  
 3 A In 2007.  
 4 Q In 2007, and so for those respondents, voting  
 5 for an increase in the state income tax wasn't a 04: 49PM  
 6 real choice for them, wasn't meaningful to them?  
 7 MS. XIDIS: Objection to form.  
 8 A We asked them to vote for a special tax on  
 9 their next tax bill. I can give you the specific  
 10 language. So they would pay a one-time tax added to 04: 50PM  
 11 their state income tax next year.  
 12 Q What page are you on?  
 13 A Page 4-27.  
 14 Q So for those Oklahoma taxpayers who don't pay  
 15 state income taxes, did the statement that this 04: 52PM  
 16 would be added to their state tax bill have any  
 17 meaning to them; do you know?  
 18 A I believe it did.  
 19 Q Why?  
 20 A Because, one, we asked them a question about 04: 52PM  
 21 what they made in 2007 and whether or not they paid  
 22 taxes in 2007, not whether they've ever paid taxes  
 23 or ever plan to pay taxes or plan to pay taxes next  
 24 year. This was just to get through the base income  
 25 number, a standard way to ask that question. So 04: 52PM  
 0218 they may, for whatever reason, have not paid taxes



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2 in 2007, may have paid taxes in 2008, may have paid  
3 taxes in 2009.

4 Q What is consequentiality with respect to a  
5 contingent valuation survey? 04: 53PM

6 A It's that people feel there's a consequence to  
7 the decision that they make, the choice that they  
8 make in the survey.

9 Q How does making several statements along the  
10 lines of your vote matters ensure consequentiality 04: 53PM  
11 in your survey?

12 A It's one of the many things we did in the  
13 survey that helped reinforce the consequentiality of  
14 the survey.

15 Q What are the other things you did besides 04: 54PM  
16 that?

17 A We told them that it would have an effect on  
18 their taxes or on the cost to their households. We  
19 told them it was going to be used in decision-making  
20 processes. There were a number of things we used 04: 54PM  
21 throughout the survey to make the consequences of  
22 their decision real to them.

23 Q Okay. You've told me that you told them they  
24 were going to be used in the decision-making process  
25 and you told them it would affect their taxes. What 04: 54PM  
0219 else?

1 A I'll go through the survey and show you what I  
2 think to be the key components of consequentiality.  
3 So, first of all, it matters what the -- sort of the  
4 overall process. People are sent information about 04: 55PM  
5 trying to get -- we want their vote, we want their  
6 opinion on something, that we come to their door, we  
7 make this a real event for them, and then in the  
8 survey as is presented, we present information to  
9 them. I need to look at the survey to tell them 04: 55PM  
10 exactly what the survey says that I specifically  
11 think helps with consequentiality.

12 I'm looking at Exhibit 11. First off, we  
13 start with a number of questions about real things  
14 the State does with tax dollars and with State 04: 56PM  
15 funding right from the very beginning in the first  
16 six questions. Then we talk specifically some  
17 additional things about the State spends money on,  
18 setting up that the State really does spend money on  
19 things, and decisions need to be made to spend money 04: 56PM  
20 on things. Then we go into saying the State doesn't  
21 want to do something new without understanding its  
22 effects on the people, and the State wants to find  
23 out from you about this. We tell them that at the  
24 time we're going to ask them to make a decision 04: 57PM  
0220 about what we're telling them. We tell them that  
1 their vote will help the State decide and that what  
2 they do may affect their taxes. So there's -- in  
3 the very beginning right off the bat we set up the  
4 consequentiality of the survey. 04: 57PM  
5 Q So, again, it may affect their taxes and it's  
6 to help the State decide?

7 A Consequences of their decisions, that's what  
8 consequentiality is.

9 Q Okay, and those were the two consequences? 04: 57PM  
10 A There were a number of things I mentioned  
11 there.  
12

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13 Q Were some of the respondents paid for their  
14 time?  
15 A I think all of the respondents were paid, 04: 57PM  
16 which is standard survey practice.  
17 Q Do you know whether or not the respondents  
18 were taking the survey just for the money that they  
19 were paid?  
20 MS. XIDIS: Objection to form. 04: 58PM  
21 A I'm not quite sure on the question.  
22 Q Well, how do you know the respondents weren't  
23 just doing the survey for the \$50 that you paid  
24 them?  
25 MS. XIDIS: Objection to form. 04: 58PM  
0221  
1 A They were doing the survey because we came to  
2 the door and asked them to do that, and  
3 consideration of the time and thoughtfulness for us,  
4 we paid them the money, and that's standard survey  
5 practice. 04: 58PM  
6 Q And you paid them all \$50; is that correct?  
7 A I believe we used a consistent \$50, yes. Is  
8 this all one document?  
9 Q It is. Mr. Chapman, I've handed you what's  
10 been marked as Deposition Exhibit No. 14. Can you 04: 59PM  
11 tell me if these are your notes?  
12 A They are. Well, I can tell you they look like  
13 my notes, so, yes.  
14 Q You can just page through them and make sure  
15 they are all your notes. 04: 59PM  
16 A They look to be, yes.  
17 Q If you would look at the executive summary of  
18 your report, Exhibit 10, for just a moment.  
19 A Okay.  
20 Q And this is a portion of the report that you 05: 01PM  
21 had a hand in writing; correct?  
22 A Yes.  
23 Q In the first paragraph you talk about a team  
24 of internationally known experts in environmental  
25 economics, natural resource damage assessments and 05: 01PM  
0222  
1 survey methodology conducted the study over more  
2 than -- over a more than two-year period. Do you  
3 see that sentence?  
4 A Yes.  
5 Q Can you identify for me who you consider to be 05: 01PM  
6 the experts in environmental economics?  
7 A That would be -- again, I think the experts as  
8 I'm using here, I'm using sort of a lay term of  
9 experts, not a legal term of experts. So I'm using  
10 a lay term as I consider them. I consider Dr. 05: 01PM  
11 Hanemann, Dr. Morey, Dr. Bishop, Dr. Kanninen and  
12 myself.  
13 Q How about who you consider to be  
14 internationally known experts in natural resource  
15 damage assessments? 05: 02PM  
16 A I would consider myself, Dr. Hanemann, Dr.  
17 Krosnick, Dr. Bishop.  
18 Q And, lastly, how about who you consider to be  
19 an internationally known expert in survey  
20 methodology? 05: 02PM  
21 A Primarily Dr. Krosnick and Dr. Tourangeau, Dr.  
22 Hanemann and Dr. Bishop to lesser degrees. Dr.  
23 Morey, too, I would think.

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24 Q Anyone else?  
 25 A That's where I would throw that. 05: 02PM  
 0223  
 1 MR. DEIHL: Why don't we go off the Record  
 2 for a moment? I think I'm just about done.  
 3 VIDEOGRAPHER: We are off the Record. The  
 4 time is 5:03 p.m.  
 5 (Following a short recess at 5:03 p.m.,  
 6 proceedings continued on the Record at 5:06 p.m.)  
 7 VIDEOGRAPHER: We are back on the Record.  
 8 The time is 5:06 p.m.  
 9 MR. DEIHL: Before I get back on the  
 10 Record, just a housekeeping matter, Claire, I'm told 05: 06PM  
 11 that I was -- a motion for admission for pro hac  
 12 vice was filed earlier today on my behalf and I  
 13 signed it, so we're clear on that.  
 14 MS. XIDIS: Thank you.  
 15 Q Mr. Chapman, as part of your responsibilities 05: 07PM  
 16 to oversee the project management of this project,  
 17 did you keep track of the fees that Stratus and its  
 18 consultants were charging to the plaintiffs?  
 19 A I kept track of the charges that Stratus made. 05: 07PM  
 20 I did not control the fees or charges that other  
 21 consultants had that we didn't have anything to do  
 22 with.  
 23 Q To date, how much has Stratus charged in  
 24 connection with this project?  
 25 A About 4.3 million dollars. 05: 07PM  
 0224  
 1 Q And that does not include the fees of the  
 2 other authors of the report; is that correct?  
 3 A The other authors of the report bill directly  
 4 to the clients.  
 5 Q So I'd have to ask them how much they charged? 05: 07PM  
 6 A Yes.  
 7 Q Does that include the fee that Westat charged?  
 8 A Yes.  
 9 Q Does it include the fee that Dr. Bishop has  
 10 charged? 05: 08PM  
 11 A It includes his direct cost to them, yes.  
 12 Q His direct cost to them?  
 13 A Yeah -- no. I'm sorry. Our amount includes a  
 14 fee on Dr. Bishop that we charge.  
 15 Q Okay. Mr. Chapman, I've handed you what's 05: 08PM  
 16 been marked as Deposition Exhibit No. 15, which is  
 17 an E-mail from Dr. Morey to you dated April 5th,  
 18 2007 and it says show them the alum before they  
 19 leave the room. Do you know what that's referring  
 20 to? 05: 09PM  
 21 A I have no idea.  
 22 Q Okay. Do you know where you were on or about  
 23 April 5th, 2007?  
 24 A I'd have to look at my calendar.  
 25 Q Okay. Mr. Chapman, I've handed you what's 05: 09PM  
 0225  
 1 been marked as Deposition Exhibit 16, which is an  
 2 E-mail chain. The first E-mail is from David Page  
 3 to Kevin Boyle dated September 26th, 2007. Below  
 4 that is an E-mail from Kevin Boyle to David Page and  
 5 you were copied on that dated also September 26th, 05: 10PM  
 6 2007, and in the text of that E-mail Mr. Boyle  
 7 states, at the Boulder meeting, I supported hiring  
 8 an additional consultant because I felt that experts

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9 should not be forced to testify to something they  
10 are uncomfortable with. Do you know what Boulder  
11 meeting Mr. Boyle is referring to? 05: 10PM

12 A It was a meeting in Boulder, Colorado. We  
13 periodically had team meetings in Boulder. Seems  
14 it's easy to get people to come to Boulder.

15 Q Which experts were uncomfortable with back  
16 casting? 05: 10PM

17 A I don't know specifically which experts Dr.  
18 Boyle talked to or talked to about this, so I  
19 couldn't tell you specifically who he was referring  
20 to. 05: 11PM

21 Q You don't recall any discussions about back  
22 casting in which experts expressed they were  
23 uncomfortable with testifying about that  
24 methodology?

25 A I don't. I think there were issues associated 05: 11PM

0226  
1 with how we were going to do it. We hadn't fully  
2 formulated it at that point, exactly how it was  
3 going to be done because we hadn't finished the  
4 study yet, so we didn't really know at that time  
5 what we would have available to back cast, and so  
6 we -- there might very well have been discussions  
7 that he had with people because of the fact that we  
8 hadn't decided that yet. 05: 11PM

9 Q Do you know who -- oh, Ingrid, is Ingrid the  
10 woman who was in the deposition here today? 05: 12PM

11 A Her name is Ingrid.

12 Q Ingrid Moll?

13 A Yes.

14 Q Did she have input into the survey materials?

15 A I know periodically she looked at them. I  
16 would send them to her to look at, and she would  
17 provide -- mostly she provided very good grammatical  
18 corrections. 05: 12PM

19 Q Handing you a document that's been marked as  
20 Deposition Exhibit No. 17, which is an E-mail from  
21 you to Ingrid Moll dated November 7th, 2007, I'm  
22 interested in the E-mail that she sent to you  
23 directly below that in which she's quoting to you  
24 Claire's comments on Sections 3 and 4. Do you see  
25 that? 05: 13PM

0227  
1 A Yes.

2 Q And who is Claire?

3 A I would believe it's Claire who is sitting  
4 here today.

5 Q And so are these comments that Claire is  
6 making on the report? 05: 13PM

7 A These are comments that Ingrid sent to me. I  
8 don't know if they're on the report. I know they're  
9 not on the report.

10 Q Okay, and they're talking about Section 3 and  
11 Section 4. These sections go back and forth from  
12 discussing the poultry industry to discussing  
13 farmers. For example, the fourth and fifth  
14 paragraphs refer to farmers. Should we say this,  
15 quote, this means that the chicken and turkey  
16 industry puts out over a hundred thousand tons  
17 rather than, quote, this means that the chicken and  
18 poultry farmers put out a hundred thousand tons? 05: 13PM

19 Did you make this change to the survey to substitute

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20 industry for farmers at the request of Claire? 05: 14PM

21 A This wasn't a request. It was a question.

22 Q Okay. Did you make the suggested change?

23 A I'd go back and look to see how we presented

24 it to see this because I think ultimately our goal

25 was actually the upper part, and as we went back and 05: 14PM

0228

1 forth, we were trying to be clear, and she

2 identified a place where we at the time weren't

3 clear.

4 Q And why were you trying to be clear between

5 the chicken and turkey industry and chicken and 05: 14PM

6 poultry farmers?

7 A Because that's what we were focusing on.

8 Q What were you focusing on?

9 A On sort of the farmers and people who put

10 stuff on the field and all the different components, 05: 14PM

11 which we described as the chicken and poultry

12 industry to the respondents.

13 Q And you didn't want to include the word

14 farmers in the survey?

15 A It wasn't specifically about farmers. It was 05: 15PM

16 just farmers was too limiting to what people on the

17 focus groups talked about and what we were trying to

18 do in terms of the different activities that went on

19 in the region.

20 Q And then below that there are some comments on 05: 15PM

21 the images that had been provided; do you see that?

22 A Uh-huh.

23 Q And so, again, Claire was commenting on the

24 caption that should go into the photos and the

25 survey; right? 05: 15PM

0229

1 A She was asking a question if we were being

2 clear about what we had in the captions of what we

3 wanted to ask.

4 Q And she was providing you with suggestions as

5 to how those captions should appear in the survey 05: 15PM

6 that was being used; correct?

7 A Yeah. I read those as clarifications of why

8 she was asking the question, yeah.

9 Q Does Claire have any expertise in designing

10 these kinds of surveys? 05: 16PM

11 A Again, I don't know specifically, so I don't

12 know.

13 Q Did you ask her if she had any expertise in

14 designing these kinds of surveys?

15 A No. 05: 16PM

16 Q Was it important to you whether she had any

17 expertise in designing these kinds of surveys?

18 A No. She didn't put these words into the

19 survey. She made a suggestion to us. We evaluated

20 it, looked at it, see if it was clear about what we 05: 16PM

21 were trying to do, whether it was helpful to us, and

22 then we decided whether or not it would go in.

23 Q But you were exchanging iterations of this

24 draft survey with the attorneys at Motley Rice;

25 correct? 05: 16PM

0230

1 A Yes.

2 Q And you were making sure that the attorneys at

3 Motley Rice were comfortable with the survey

4 questions as they were being drafted; right?

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EXHIBIT Q

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5 A No. 05: 16PM  
6 Q Why were you sending copies of the survey to  
7 the attorneys at Motley Rice?  
8 A They're the client. It's very, very common  
9 for us to send copies of the survey to the client  
10 for them to understand what we're doing, and so we 05: 17PM  
11 make the decisions about what the survey looks like,  
12 what's in the survey, what's not in the survey, but  
13 it's not unusual at all to provide the clients with  
14 copies of the survey.  
15 Q Okay. Mr. Chapman, I've handed you what's 05: 17PM  
16 been marked as Deposition Exhibit 19 (sic), which is  
17 an E-mail from David Page to you dated May 20th,  
18 2008.  
19 A Uh-huh.  
20 Q Attaching pictures from a natural stream sent 05: 17PM  
21 by Brian and Jan. Do you see that?  
22 A Yes.  
23 Q Who are Brian and Jan; do you know?  
24 A I don't know specifically who Brian and Jan  
25 are. 05: 18PM  
0231  
1 Q Okay. Was Mr. Page collecting pictures to be  
2 used in the survey?  
3 A I don't know why Mr. Page was collecting  
4 surveys -- I mean, pictures, but he had a number of  
5 them, and periodically when we would want additional 05: 18PM  
6 pictures, he was -- he had access to the best  
7 sources of pictures, the most comprehensive sets of  
8 pictures.  
9 Q What were his sources of pictures?  
10 A They had some set of pictures that we could 05: 18PM  
11 ask them for pictures and they would send us  
12 pictures.  
13 Q They being the Riggs Abney Firm?  
14 A They being actually David Page.  
15 Q Okay, and David Page is an attorney at Riggs 05: 18PM  
16 Abney; is that correct?  
17 A Yeah.  
18 Q And were some of the pictures that the  
19 attorney at Riggs Abney provided to you used in the  
20 survey documents? 05: 19PM  
21 A I don't know specifically.  
22 Q Could have been?  
23 A Again, I'd have to go back. I know that Dr.  
24 Bishop knows specifically where each of the pictures  
25 in the survey came from. 05: 19PM  
0232  
1 Q Okay.  
2 MR. DEIHL: I do not have any further  
3 questions at this time.  
4 MS. XIDIS: Gentlemen?  
5 MR. GRAVES: I have just a couple, and 05: 19PM  
6 that's telling the truth. I'm not saying I have a  
7 couple when I have a hundred.  
8 DIRECT EXAMINATION  
9 BY MR. GRAVES:  
10 Q I don't have a full set of exhibits here, but 05: 19PM  
11 in the main report or what's been called the main  
12 report, on Page 1-2, do you have that in front of  
13 you?  
14 A I'll get it.  
15 MS. XIDIS: Of Exhibit 10. 05: 20PM

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EXHIBIT Q



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16 A Okay.  
 17 Q In the last paragraph on that page you have a  
 18 couple of sentences that start runoff and leachate  
 19 around the middle of that paragraph.  
 20 A Yes. 05: 20PM  
 21 Q Both of those sentence -- that sentence and  
 22 the next sentence, there's not an attribution for  
 23 either of those sentences. Is it intended that the  
 24 citation at the end of the paragraph are where that  
 25 information came from or did it come from somewhere 05: 20PM  
 0233  
 1 else?  
 2 A Dr. Bishop I think wrote that part of the  
 3 paragraph so we'd have to check with him.  
 4 Q Okay. So as you sit here now, you're not  
 5 aware of the source of those statements concerning 05: 20PM  
 6 runoff and leachate?  
 7 A This is consistent with the information from  
 8 my discussions with natural scientists. So I know  
 9 that discussions with Dr. Stevens (sic), we talked a  
 10 little bit about this and conversations with -- I 05: 21PM  
 11 can't remember whether it was Dr. Cooke or Dr.  
 12 Welch, I pretty talked to them only on the phone so  
 13 their voices run together. So I can't tell whether  
 14 it's just these two points or whether it was  
 15 additional conversations, too. 05: 21PM  
 16 Q How many conversations did you have with Dr.  
 17 Cooke, Welch and Stevenson regarding the report?  
 18 A There were multiple over the years. I'm  
 19 sorry, I can't tell you exactly how many.  
 20 Q By you personally? 05: 21PM  
 21 A Yes.  
 22 Q Okay. On the next page on Page 1-3 in the  
 23 first paragraph, similarly, there's a sentence that  
 24 starts unfortunately and it speaks about the  
 25 quantities of phosphorus in the watershed and 05: 21PM  
 0234  
 1 attributes it to the spreading of poultry litter and  
 2 assigns a length of time that it's going to take for  
 3 that situation to be resolved. Where -- what's the  
 4 source of those particular statements in that  
 5 paragraph? Again, there's no attribution in your 05: 22PM  
 6 report?  
 7 A Right, I understand. And, again, this is  
 8 conversations with the natural scientists.  
 9 Q But it would be conversations that you had or  
 10 is something that someone else drafted? 05: 22PM  
 11 A I had conversation that support this  
 12 information, yes.  
 13 Q Who drafted this particular paragraph?  
 14 A I couldn't tell whether it was just Dr. Bishop  
 15 or Dr. Bishop and myself. There were parts of this 05: 22PM  
 16 we both did.  
 17 Q Would it be the same scientists that you just  
 18 mentioned with regard to the previous paragraph that  
 19 you would have had these conversations with?  
 20 A Yes, I think so. 05: 22PM  
 21 Q Would it have been anyone else on the team  
 22 besides you and Dr. Bishop that would have spoken  
 23 with those particular scientists in order to  
 24 formulate these two paragraphs?  
 25 A Mostly Dr. Bishop and myself. I don't know 05: 23PM  
 0235

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1 the other conversations that the other team members  
2 had. Sorry.  
3 Q Did you or Dr. Bishop do any field work  
4 yourself to allocate sources of phosphorus runoff,  
5 leachate or other materials in the Illinois River 05: 23PM  
6 watershed?  
7 A I did not.  
8 Q So would you have been relying on these  
9 conversations with the scientists that you've  
10 already referenced for those types of statements in 05: 23PM  
11 the report?  
12 A For the most part. Some of them we just  
13 made -- some of them are not specific to -- they're  
14 trying to develop some different types of  
15 information for the respondents. So whether it's 05: 23PM  
16 specifically accurate on -- whether it's like that  
17 one section of 40 or 60 percent, that wasn't what we  
18 were really trying to get at there. We were trying  
19 to show general sources of or alternative sources of  
20 phosphorus into the system to the respondents. 05: 24PM  
21 Q I'm not asking you about the survey, though,  
22 right now or the portion of the report regarding the  
23 survey. I'm asking you about these unattributed  
24 statements in these two paragraphs of the report.  
25 A Okay. Could you read back the question then? 05: 24PM  
0236  
1 (Whereupon, the court reporter read  
2 back the previous question at Page 235, Lines  
3 8-11.)  
4 A On whether things existed or not or would  
5 state to exist? 05: 24PM  
6 Q Specifically the paragraphs on Page 1-2 and  
7 1-3 that I've just asked you questions about, those  
8 weren't presented to survey respondents, those two  
9 paragraphs?  
10 A No, no. 05: 24PM  
11 Q Correct?  
12 A No, they were not.  
13 Q Okay. So when we're talking about these  
14 paragraphs where factual statements are made in the  
15 report and we're not talking about the survey part 05: 25PM  
16 of the report, we're just talking about a  
17 presentation of purported facts in the report.  
18 A Uh-huh.  
19 Q Did Stratus, and particularly you, do any type  
20 of field work to confirm those factual statements? 05: 25PM  
21 A No.  
22 Q Okay. So you are completely relying on the  
23 work of other scientists retained by the State in  
24 this case; is that true?  
25 A For the most part, yes. 05: 25PM  
0237  
1 Q Well, you say for the most part. What is the  
2 least part then? What part would you have done?  
3 A Just reading the news press and the news  
4 articles and reading information on the web about  
5 the area talk about these sort of things, too, so I 05: 25PM  
6 did that as part of the research. So I'd say I'd  
7 have to rely on that, too.  
8 Q And what news articles -- from what sources  
9 would you have been reviewing news articles and  
10 press releases? 05: 25PM  
11 A From the Oklahoma and Arkansas newspapers.

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12 Q And what time frame would you have been  
13 reviewing those types of materials?  
14 A 2005 on, 2004, late 2004, 2005 on.  
15 Q Okay. Is it your belief that there are news 05: 26PM  
16 reports that speak to runoff and leachate and  
17 attributing those -- those particular types of  
18 events to the application of poultry litter in the  
19 watershed?  
20 A Again, those -- 05: 26PM  
21 MS. XIDIS: Objection to form.  
22 A -- those were the sources I was looking at for  
23 that and as I said, those could be -- when you asked  
24 me what are the lesser ones, I said those could be  
25 the ones that were there, too. 05: 26PM  
0238  
1 Q Would those newspaper articles have been  
2 presented to the defendants or produced as part of  
3 your considered materials in the case?  
4 A I think they should have been, yeah. I would  
5 think they would have been. 05: 26PM  
6 Q So you think those types of materials that you  
7 reviewed would be included in the materials you  
8 produced in the case?  
9 A I think so, yes.  
10 Q If they're not, did you maintain any type of a 05: 27PM  
11 file where those materials are kept that you might  
12 access or get them to the defense relatively easily?  
13 A If I had them, they were turned over.  
14 MS. XIDIS: And if I have them, you have  
15 them. 05: 27PM  
16 Q That's not exactly my question. My question  
17 was, did you keep a file of those types of materials  
18 as you reviewed them?  
19 A If I kept a file of them, I would have turned  
20 them over. 05: 27PM  
21 Q Did you keep a file of them?  
22 A I don't -- I didn't personally keep a file of  
23 them, no.  
24 Q Do you know whether anyone else at Stratus did  
25 keep such a file? 05: 27PM  
0239  
1 A I can't tell you that as I sit here. I'd have  
2 to go back and check.  
3 Q As to the damages numbers you give in each of  
4 the two reports or the range that you give that  
5 you've already testified to, do you attempt to 05: 27PM  
6 determine in any way what part of those damage  
7 numbers you believe are caused by any particular  
8 defendant in the case?  
9 A No, we do not.  
10 Q Do you attribute those damages numbers in your 05: 28PM  
11 report to any particular fields or locations within  
12 the Illinois River watershed?  
13 A No, we do not.  
14 Q Are you aware of any other manmade reservoirs  
15 that are located in the same ecoregion as Lake 05: 28PM  
16 Tenkiller where the water quality or the aesthetics  
17 have remained unchanged since 1960?  
18 A I am not an ecologist, so I'm not sure what  
19 you mean by ecoregion.  
20 Q Okay. Are you aware of any other reservoirs, 05: 28PM  
21 manmade reservoirs in Oklahoma or Arkansas that have  
22 remained unchanged aesthetically since 1960?

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23 MS. XIDIS: Objection to form.  
 24 A I am not personally aware of that, no.  
 25 MR. GRAVES: I don't have any other 05: 28PM  
 0240  
 1 questions. I'll pass the witness.  
 2 MR. ELROD: Looking at me?  
 3 MR. GRAVES: I'm looking at you.  
 4 MR. ELROD: I'm thinking. If I had any  
 5 questions to ask I'd ask them, but I don't know of 05: 28PM  
 6 any.  
 7 MS. XIDIS: Vickie, are you still there?  
 8 MR. ELROD: No. She's gone.  
 9 MS. XIDIS: Okay.  
 10 MR. HIXON: I haven't abdicated yet. 05: 29PM  
 11 MS. XIDIS: I have a few quick questions.  
 12 MR. HIXON: I haven't abdicated yet.  
 13 MS. XIDIS: Oh, I'm sorry. You do have  
 14 questions?  
 15 MR. HIXON: I do have questions. 05: 29PM  
 16 DIRECT EXAMINATION  
 17 BY MR. HIXON:  
 18 Q Mr. Chapman, Mr. Deihl asked you a question  
 19 earlier about the 60 percent ban and you referred to  
 20 I believe Appendix A and read from A-19, but I don't 05: 29PM  
 21 believe you'd ever answered his question and as I  
 22 recall, that question was, did you inform, and you  
 23 being Stratus or the surveyors or whoever  
 24 communicated with the respondents, did you inform  
 25 the respondents that this 60 percent, which is 05: 29PM  
 0241  
 1 attributed to poultry litter, would be replaced with  
 2 some other fertilizer source such as commercial  
 3 fertilizer?  
 4 MS. XIDIS: Objection. I think that's been  
 5 asked and answered. 05: 30PM  
 6 MR. HIXON: It wasn't answered.  
 7 A I don't think we specifically mentioned the --  
 8 and I'll have to go back and look at the survey, but  
 9 I don't think we specifically mentioned, except for  
 10 commercial fertilizers, that they would be used 05: 30PM  
 11 instead.  
 12 Q Do you understand what poultry litter -- how  
 13 it's used in the Illinois River watershed?  
 14 A I have a general understanding.  
 15 Q What's your understanding of how it's used in 05: 30PM  
 16 the Illinois River watershed?  
 17 A That it is applied as a -- that it's applied  
 18 to fields.  
 19 Q Okay. Applied to fields for what purpose?  
 20 A It's a disposal process. It's applied to put 05: 30PM  
 21 on the fields for helping the plants grow as we  
 22 describe.  
 23 Q Okay. As a fertilizer?  
 24 A Helps them grow as we said.  
 25 Q Okay. If the court banned the use of that 05: 31PM  
 0242  
 1 fertilizer, would it be reasonable that the farmer  
 2 would replace that with a different kind of  
 3 fertilizer?  
 4 MS. XIDIS: Objection to form.  
 5 A I don't know the answer. I'm not an 05: 31PM  
 6 agronomist. I don't know.  
 7 Q Okay. If that were true, that litter was

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8 replaced with commercial fertilizer and that  
9 fertilizer contained the same type of nutrients that  
10 poultry litter contains, would that be something 05: 31PM  
11 that would be important to your survey?

12 MS. XIDIS: Objection to form.

13 Q If you're replacing phosphorus in litter with  
14 phosphorus in commercial fertilizer, would that have  
15 an impact on a respondent's willingness to pay? 05: 31PM

16 MS. XIDIS: Objection to form.

17 A I don't believe so because I think applying  
18 fertilizer in a -- commercially bought fertilizer  
19 would be applied in a way that it didn't -- wasn't  
20 applied excessively and didn't run off into the 05: 32PM  
21 rivers and lakes and cause damage. So I don't think  
22 it would affect the answers.

23 Q What's the basis for your belief regarding the  
24 application of commercial fertilizer?

25 A You just asked me what I believed and I told 05: 32PM

0243 you what I believed.

1 Q And I'm asking you the basis for that belief.

3 A Just thinking about how if I was a farmer and  
4 I had to buy fertilizer, what I would do.

5 Q So it's just your personal belief? 05: 32PM

6 A You asked me what my belief was. I told you  
7 I'm not an agronomist; I'm not a farmer.

8 Q Did you inform the respondents and, again, you  
9 as Stratus or the surveyors, whomever you want to  
10 stick in to you, inform the respondents that the use 05: 33PM  
11 of poultry litter as a fertilizer both in Oklahoma  
12 and Arkansas is a regulated activity?

13 A I'd have to look. Let me look to see if we  
14 said anything like that in the survey. All we said  
15 is that people had been doing it for a long time and 05: 34PM  
16 now there's more put on than necessary.

17 Q Okay, and what's the basis for your -- the  
18 factual statement that more is put on than  
19 necessary?

20 A From conversations with the natural 05: 35PM  
21 scientists.

22 Q Okay. Do you know what their basis was for  
23 those statements?

24 A You'd have to ask them.

25 Q Did you review any of the poultry regulations 05: 35PM

0244 1 or poultry statutes enacted by the State of Oklahoma  
2 regarding the land use of poultry litter?

3 A I personally did not, no.

4 Q Okay. Did anyone on the Stratus team?

5 A I couldn't speak to that. 05: 35PM

6 Q Okay. If the State of Oklahoma sets out how  
7 much litter can be applied on any specific pasture,  
8 would that be something that would be important to  
9 your survey?

10 MS. XIDIS: Objection to form. 05: 35PM

11 A I don't believe so, no.

12 Q Okay. Why not?

13 A Because that's not part of the scenario that  
14 we're giving people in the survey.

15 Q Okay. If the reality is the State of Oklahoma 05: 36PM

16 tells the farmer how much litter he can apply to a  
17 specific field and that differs from the scenario  
18 that you're giving to respondents, what impact does

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19 that have on a willingness to pay?  
 20 MS. XIDIS: Objection, form. 05: 36PM  
 21 A I can't answer that question because I -- we  
 22 didn't test that out, and I don't know how that  
 23 would affect willingness to pay.  
 24 Q Okay, and I ask that question because your  
 25 testimony earlier to Mr. Deihl was to the effect it 05: 36PM  
 0245  
 1 didn't matter what the solution to the problem was  
 2 so long as it was plausible, and what I'm  
 3 understanding now is it doesn't matter what your  
 4 initial -- how your definition of the problem --  
 5 whether it reflects reality or not? 05: 36PM  
 6 A No, I didn't say that.  
 7 MS. XIDIS: Objection.  
 8 Q Okay. Well, explain to me where I'm  
 9 misunderstanding.  
 10 A I don't know where you're misunderstanding. 05: 37PM  
 11 I'm sorry.  
 12 Q Well, you've got the real situation. The  
 13 State of Oklahoma regulates the land application of  
 14 poultry litter. You understand that?  
 15 A As you state it, yes, I understand it. 05: 37PM  
 16 Q Okay.  
 17 A I haven't read the regulations. I'm not a  
 18 lawyer. I don't live in Oklahoma. I can't tell  
 19 you.  
 20 Q Okay, and that wasn't anything that was 05: 37PM  
 21 considered in preparing the survey instrument; is  
 22 that my understanding?  
 23 A I did not look at the regulations.  
 24 Q Okay. Did anyone at Stratus look at the  
 25 regulations? 05: 37PM  
 0246  
 1 MS. XIDIS: Objection, asked and answered.  
 2 A Again, I don't know what other people at  
 3 Stratus did, everything that they did.  
 4 Q Okay. You've testified that you were involved  
 5 with developing this entire report? 05: 37PM  
 6 A Yes.  
 7 Q Was the consideration of poultry litter  
 8 regulations part of the process that led to this  
 9 report?  
 10 A I didn't specifically and I don't believe -- I 05: 38PM  
 11 didn't specifically look at the poultry regulations.  
 12 Whether other members of the team looked at poultry  
 13 regulations and how that influenced their decisions  
 14 in the report, I don't -- I can't tell you.  
 15 Q Okay. How was the initial scenario, the 05: 38PM  
 16 definition of the problem, how was that developed?  
 17 A Through conversations of the team, through  
 18 discussions with the natural scientists and through,  
 19 yeah, conversations with the team and the natural  
 20 scientists. 05: 38PM  
 21 Q Did you or to your knowledge anyone at Stratus  
 22 ever speak with anyone at any of the Oklahoma  
 23 administrative agencies, such as the Oklahoma  
 24 Department of Agriculture or the Department of  
 25 Environmental Quality, the Water Resource Board, the 05: 39PM  
 0247  
 1 Conservation Commission?  
 2 A Yes.  
 3 Q Who did you speak with or who was involved in



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4 the process?  
5 A I spoke with -- what's his name? He was the 05: 39PM  
6 head of the environment program, the environment  
7 commissioner, whoever he was at the time. I'm  
8 sorry. I'm blanking on his name at the time.  
9 Q Steve Thompson?  
10 A No. 05: 39PM  
11 Q Miles Tolbert?  
12 A Yes, Miles, and I spoke with -- I didn't speak  
13 with but people from Stratus spoke with people from  
14 the Scenic Rivers Commission.  
15 Q Okay. Do you know who they spoke with at the 05: 39PM  
16 Scenic Rivers Commission?  
17 A It would be Ed Fite.  
18 Q Did you personally speak with Mr. Tolbert?  
19 A Yes.  
20 Q And what were your conversations with Mr. 05: 40PM  
21 Tolbert?  
22 A They were about what's going on out there in  
23 the environment and --  
24 Q Okay. Can you make that a little more  
25 specific? 05: 40PM  
0248  
1 A It was quite some time ago. I'm sorry. So it  
2 was about what's going on out in the environment and  
3 what his understandings of things were.  
4 Q Okay, and when you're saying the  
5 environment -- 05: 40PM  
6 A The Tenkiller Lake, Illinois River area.  
7 Q Okay, and what's going on, what's --  
8 A Changes in the environment, the effects that  
9 he understood from the poultry litter.  
10 Q Okay, and were these conversations all 05: 40PM  
11 regarding the use of poultry litter?  
12 A We talked about a number of different things.  
13 I mean, they're all about this, around the study.  
14 Q Okay. Did you talk about alternative sources  
15 of phosphates or nitrates or any of the other 05: 41PM  
16 substances?  
17 A I don't believe we did, no.  
18 Q Did you meet with anyone in -- as part of your  
19 preparation for this deposition?  
20 A Yes. 05: 41PM  
21 Q Who did you meet with?  
22 A I met with Claire and Ingrid.  
23 Q Okay. When did you meet with them?  
24 A Yesterday starting around noon. Given I was  
25 just given notice on Friday, that was the soonest I 05: 41PM  
0249  
1 could get here.  
2 Q Okay, and how long did that meeting last?  
3 A From 12:30 until 5:00 or so. I was pretty  
4 tired.  
5 Q Okay, and what did you do; what was the 05: 41PM  
6 purpose of that four and a half hour meeting?  
7 A To talk about what would go on here today, to  
8 talk about the process that we would go through,  
9 things like that.  
10 Q Did you review any documents? 05: 42PM  
11 A I reviewed my main report and the appendix and  
12 the past damages report.  
13 Q When you say appendix --  
14 A I'm sorry, Volume II, which I consider to be

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15 the appendix. So Volume I and Volume II of the main 05: 42PM  
 16 report and the past damages report.  
 17 Q So all of the appendices?  
 18 A Yeah.  
 19 Q Were there any other documents you reviewed?  
 20 A Those were the main documents I think, yeah. 05: 42PM  
 21 Those were the main ones.  
 22 Q Did you take any notes with you or take any  
 23 notes during the meeting?  
 24 A No.  
 25 Q Regarding the 40 percent -- there's a 05: 42PM  
 0250  
 1 statement in the report that the 40 percent is being  
 2 dealt with by the State in effect, and you testified  
 3 earlier that that representation was based on  
 4 conversations had with the attorneys and with the  
 5 natural scientists; is that correct? 05: 43PM  
 6 MS. XIDIS: Objection to form.  
 7 A That's not what I said.  
 8 Q Okay. What did you say?  
 9 A We'd have to go back.  
 10 Q Okay. The 40 percent -- though, the 05: 43PM  
 11 representation that there's something is being done  
 12 to deal with the other 40 percent, were those -- did  
 13 you have conversations with the attorneys regarding  
 14 that factual statement?  
 15 A I can't remember whether we talked 05: 43PM  
 16 specifically about that with the attorneys.  
 17 Q Okay. We were talking about Exhibit 11 at  
 18 Pages A-14, and you mentioned that you talked with  
 19 the natural scientists and the attorneys regarding  
 20 other treatment of the remaining 40 percent. You 05: 44PM  
 21 testified that you had spoken with the attorneys.  
 22 A Okay, and that was specifically to this  
 23 section here. I'd have to go back to make sure.  
 24 Q That is indicated in my notes.  
 25 A Okay. 05: 44PM  
 0251  
 1 Q Do you know which attorneys that you spoke  
 2 with?  
 3 A No. I tend to think of them as a group.  
 4 Q Have you ever spoken with any of the attorneys  
 5 that work in the Attorney General's office? 05: 44PM  
 6 A Yes.  
 7 Q Who have you spoken with?  
 8 A Kelly Burch.  
 9 MR. ELROD: You really are running out of  
 10 tape. 05: 45PM  
 11 MR. HIXON: I'm out of tape so I'm going to  
 12 quit.  
 13 VIDEOGRAPHER: We're now off the Record.  
 14 The time is 5:45 p.m.  
 15 MR. HIXON: I'll pass. 05: 45PM  
 16 (Whereupon, a discussion was held off  
 17 the Record.)  
 18 VIDEOGRAPHER: We are back on the Record.  
 19 The time is 5:47 p.m.  
 20 Q Okay. Before we changed tapes, you indicated 05: 47PM  
 21 you've spoken with Kelly Burch. Do you recall when  
 22 you've spoken with Miss Burch?  
 23 A I've spoken with Miss Burch multiple times.  
 24 Q Okay. Do you know just -- when was the last  
 25 time you spoke with Miss Burch? 05: 47PM

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0252

1 A Probably in January.  
 2 Q January 2009?  
 3 A Yes.  
 4 Q Okay, and what was the subject of that  
 5 conversation? 05: 47PM  
 6 A That we were delivering our report.  
 7 Q Anything else?  
 8 A That was the last time we talked. I told her  
 9 we were delivering the report. It was out the door  
 10 and on time. 05: 48PM  
 11 Q Did Miss Burch -- did you provide any of the  
 12 survey materials to Miss Burch for her review?  
 13 A At certain points I did, yes.  
 14 Q And how were those materials transmitted?  
 15 A I probably would have E-mailed them to her. 05: 48PM  
 16 Q And would those E-mails, would you have  
 17 produced those in your considered materials?  
 18 A Yes.  
 19 MR. HIXON: I will pass the witness.  
 20 DIRECT EXAMINATION  
 21 BY MR. ELROD:  
 22 Q Mr. Chapman, my name is John Elrod, and I'm  
 23 sorry I haven't been here for the entire day, but I  
 24 think I have some new questions to ask. Some of  
 25 them will be similar to the ones that were just 05: 48PM

0253

1 asked. That's what prompted them. Did you tell the  
 2 survey respondents that it was the public policy of  
 3 the State of Oklahoma that people in the IRW be  
 4 permitted to land apply chicken litter as  
 5 fertilizer? 05: 49PM  
 6 A We said it had been done for many years.  
 7 Q But you did not tell them it was the public  
 8 policy of the State of Oklahoma that it was  
 9 permissible to do?  
 10 A I don't believe we used the word public 05: 49PM  
 11 policy. We said they had been doing it for a long  
 12 time.  
 13 Q And did Ed Fite -- when you talked with Ed,  
 14 did he tell you that, quote, the river is still in  
 15 pretty good shape, unquote? 05: 49PM  
 16 A I didn't talk to Ed Fite directly. As I said,  
 17 one of my staff members did.  
 18 Q Do you know whether Ed Fite told your staff  
 19 member that the river is, quote, the river is still  
 20 in pretty good shape, end quote? 05: 49PM  
 21 A I have no idea.  
 22 Q Did you ask -- did you tell your survey  
 23 respondents that the river is still in pretty good  
 24 shape?  
 25 A We told them -- we described to them the 05: 49PM

0254

1 condition of the river as presented in the survey.  
 2 Q So you did not tell them that the river is  
 3 still in pretty good shape?  
 4 A I don't know whether the respondents took the  
 5 information we presented about changes that are  
 6 currently there and said they would throw that in  
 7 the category of things are still in the pretty good  
 8 shape, so we told them -- we told them what was  
 9 currently going on. We told them what would be  
 10 going on in the future if things weren't changed. 05: 50PM

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11 Q But my specific question is this, and that is,  
12 nowhere in the survey instrument did you ask -- did  
13 you tell the respondents the exact words, quote, the  
14 river is still in pretty good shape, end quote, did  
15 you?

05: 50PM

16 A I could look through, but off the top of my  
17 head I would, no, we didn't use those words.

18 MR. ELROD: Thank you. Those are my  
19 questions.

20 MS. XIDIS: I have just a few questions.

05: 50PM

21 CROSS EXAMINATION

22 BY MS. XIDIS:

23 Q Does the CV report include a sensitivity  
24 analysis regarding the effects of survey  
25 participants who the surveyors reported as not

05: 50PM

0255 1 taking the survey seriously or not understanding  
2 parts of the survey?

3 A Yes.

4 Q And where is that information located in your  
5 report?

05: 50PM

6 A In Appendix G.

7 Q Earlier today Mr. Deihl discussed the accuracy  
8 of the past damages report with you. In your  
9 opinion is the past damages report an accurate  
10 assessment of past damages?

05: 51PM

11 A Yes.

12 Q And was the past damages report assessment  
13 performed using well-accepted methodologies set  
14 forth in the peer-reviewed literature?

05: 51PM

15 A Yes.

16 MR. DEIHL: Object to the form.

17 MS. XIDIS: That's all the questions I  
18 have. Any more questions? Okay. We're finished  
19 and off the Record.

20 VIDEOGRAPHER: This concludes the  
21 deposition. We are now off the Record. The time is  
22 5:51 p.m.

05: 51PM

23 (Whereupon, the deposition was  
24 concluded at 5:51 p.m.)  
25

0256

# SIGNATURE PAGE

1  
2  
3 I, David Chapman, do hereby certify that  
4 the foregoing deposition was presented to me by Lisa  
5 A. Steinmeyer as a true and correct transcript of  
6 the proceedings in the above styled and numbered  
7 cause, and I now sign the same as true and correct.

8 WITNESS my hand this \_\_\_\_\_ day of  
9 \_\_\_\_\_, 2009.

10

11

12

\_\_\_\_\_  
DAVID CHAPMAN

13

14

15

16

17 SUBSCRIBED AND SWORN TO before me this  
18 \_\_\_\_\_ day of \_\_\_\_\_, 2009.  
19  
20

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Notary Public

My Commission Expires:

C E R T I F I C A T E

STATE OF OKLAHOMA )  
COUNTY OF TULSA ) ss.

I, Lisa A. Steinmeyer, Certified Shorthand Reporter within and for Tulsa County, State of Oklahoma, do hereby certify that the above named witness was by me first duly sworn to testify the truth, the whole truth and nothing but the truth in the case aforesaid, and that I reported in stenograph his deposition; that my stenograph notes were thereafter transcribed and reduced to typewritten form under my supervision, as the same appears herein.

I further certify that the foregoing 255 pages contain a full, true and correct transcript of the deposition taken at such time and place.

I further certify that I am not attorney for or relative to either of said parties, or otherwise interested in the event of said action.

WITNESS MY HAND AND SEAL this 20th day of April, 2009.

LISA A. STEINMEYER, CRR  
CSR No. 386

CORRECTIONS TO THE DEPOSITION OF  
DAVID CHAPMAN

PAGE AND LINE NUMBER CORRECTION